

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF OHIO  
WESTERN DIVISION

. . . . .  
OHIO A. PHILIP RANDOLPH . Case No. 1:18-cv-357  
INSTITUTE, et al., .  
 . **Day 5 of Bench Trial**  
Plaintiffs, .  
 .  
- v - .  
 . Friday, March 8, 2019  
LARRY HOUSEHOLDER, et al., . 8:57 AM  
 .  
Defendants. . Cincinnati, Ohio  
. . . . .

- - -

TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE TIMOTHY S. BLACK, THE HONORABLE KAREN  
NELSON MOORE AND THE HONORABLE MICHAEL H. WATSON, JUDGES

APPEARANCES:

For the Plaintiffs:

FREDA J. LEVENSON, ESQ.  
American Civil Liberties Union  
of Ohio Foundation  
4506 Chester Avenue  
Cleveland, Ohio 44103

T. ALORA THOMAS-LUNDBORG, ESQ.  
THERESA J. LEE, ESQ.  
EMILY R. ZHANG, ESQ.  
American Civil Liberties Union  
Foundation  
125 Broad Street, 18th Floor  
New York, New York 10004-2400

ROBERT D. FRAM, ESQ.  
NITIN SUBHEDAR, ESQ.  
Covington & Burling LLP  
One Front Street, 35th Floor  
San Francisco, California 94111

JACOB CANTER, ESQ.  
ROBERT DAY, ESQ.  
ISAAC WOOD, ESQ.  
Covington & Burling LLP  
One CityCenter  
850 Tenth Street, N.W.  
Washington, D.C. 20001-4956

For the Defendants:

STEVEN T. VOIGT, ESQ.  
Ohio Attorney General's Office  
Constitutional Offices Section  
30 East Broad Street, 16th Floor  
Columbus, Ohio 43215

1 APPEARANCES (Continued):

2 For the Defendants Larry Householder and Larry Obhof:

3 PHILLIP J. STRACH, ESQ.  
4 MICHAEL D. McKNIGHT, ESQ.  
5 ALYSSA RIGGINS, ESQ.  
6 BRODIE ERWIN, ESQ.  
7 Ogletree, Deakins, Nash, Smoak & Stewart,  
P.C.  
4208 Six Forks Road, Suite 1100  
Raleigh, North Carolina 27609

8 For the Intervenor Steve Chabot, Brad R. Wenstrup, Jim Jordan,  
9 Bob Latta, Bill Johnson, Bob Gibbs, Warren Davidson, Michael  
10 Turner, Dave Joyce, Steve Stivers, Robert F. Bodi, Charles  
11 Drake, Roy Palmer III, Nathan Aichele, Republican Party of  
12 Cuyahoga County and Franklin County Republican Party:

13 PATRICK T. LEWIS, ESQ.	KATHERINE L. McKNIGHT, ESQ.
14 Baker & Hostetler LLP	E. MARK BRADEN, ESQ.
15 Key Tower	Baker & Hostetler LLP
16 127 Public Square, Suite 2000	1050 Connecticut Avenue, N.W.
17 Cleveland, Ohio 44114-1214	Suite 1100
	Washington, DC 20036-5043

18 ROBERT J. TUCKER, ESQ.  
19 ERIKA DACKIN PROUTY, ESQ.  
20 Baker & Hostetler LLP  
21 200 Civic Center Drive  
22 Suite 1200  
23 Columbus, Ohio 43215-4138

24 Also present: Stephen N. Najarian, Trial Consultant  
25 Forrest Williamson, Paralegal, Baker &  
Hostetler

26 Law Clerks: Christopher D. deLaubenfels, Esq.  
27 Hannah Gelbort, Esq.  
28 Adam Kleven, Esq.  
29 Caitlin Miller, Esq.  
30 Madison R. Troyer, Esq.

31 Courtroom Deputy: Rebecca R. Santoro

32 Court Reporter: Luke T. Lavin, RDR, CRR  
33 Potter Stewart U.S. Courthouse  
34 100 East Fifth Street, Room 103  
35 Cincinnati, Ohio 45202  
Telephone: (513) 564-7500

P R O C E E D I N G S

(In open court at 8:57 AM.)

(Wendy K. Tam Cho resumes the witness stand.)

JUDGE BLACK: Good morning. Please be seated.

We're here in the open courtroom on the record on Day 5 of the trial in the matter of *OAPRI, et al. versus Householder, et al.*

The witness is present. She's back on the stand.

Is there anything that requires the Court's attention before we proceed?

MR. FRAM: Good morning, Your Honor. I don't know if the Court would like, but we've got the daily time report.

JUDGE BLACK: Great.

MR. FRAM: From yesterday, for plaintiffs, we've got an additional 257 minutes, for a total of 816 in the case so far. For defendants and intervenors, an additional 76 minutes, for a total of 580 minutes in the case so far.

JUDGE BLACK: Very well. And the parties agree on that; is that right?

MR. McKNIGHT: Yes, Your Honor.

JUDGE BLACK: Great.

Are we ready to proceed to cross-examination of the witness, from the defendants' perspective?

MR. McKNIGHT: One additional matter.

JUDGE BLACK: Okay.

1 MR. McKNIGHT: We'll have Mr. DiRossi ready and  
2 available at 1:00 clock today rather than 2:00, if that works  
3 for the Court.

4 JUDGE BLACK: That's good news. Thank you for  
5 scrambling to get that done.

6 MR. McKNIGHT: Yes, Your Honor.

7 JUDGE BLACK: Are you ready to proceed this morning?

8 MR. McKNIGHT: We are, Your Honor.

9 JUDGE BLACK: From the intervenors as well?

10 MR. STRACH: Yes, Your Honor.

11 JUDGE BLACK: And the plaintiffs?

12 MR. SUBHEDAR: Yes, Your Honor.

13 JUDGE BLACK: Good morning, Doctor.

14 THE WITNESS: Good morning.

15 JUDGE BLACK: You remain under oath, and you  
16 understand?

17 THE WITNESS: Yes.

18 JUDGE BLACK: Very well. Cross-examination. Brace  
19 yourself.

20 WENDY K. TAM CHO  
21 a witness herein, having been first duly sworn, testified as  
22 follows:

23 CROSS-EXAMINATION

24 BY MR. TUCKER:

25 Q. Good morning, Dr. Cho.

1 A. Good morning.

2 Q. Nice to see you again.

3 A. You too, I think.

4 Q. Dr. Cho, you repeatedly stated during your direct testimony  
5 that you drew a set of non-partisan maps; correct?

6 A. Under the conditions of which I specified, yes.

7 Q. But the actual redistricting process in Ohio is a partisan  
8 process, isn't it?

9 A. It's run by partisan actors. I don't know if that defines  
10 a partisan process.

11 Q. Well, you agree that politics are an inevitable part of the  
12 redistricting process in Ohio, wouldn't you?

13 A. I'd say that's true.

14 Q. And that can be a constraint on that process, can't it?

15 A. So this word "constraint," if you mean it in the sense that  
16 I should constrain my simulations, I would say no. If you mean  
17 it affects what happens, I would say yes.

18 Q. Correct. So it's a constraint that the legislature has to  
19 deal with that you don't have to deal with when you run your  
20 simulation; is that accurate?

21 A. My simulations have no partisan effects, that's true. The  
22 legislature, I don't know what they do.

23 Q. Well, your simulation doesn't have to get enough votes to  
24 pass a map, does it?

25 A. Correct.

1 Q. Now, you can draw lots of maps using the Blue Waters  
2 supercomputer at your university; correct?

3 A. Yes.

4 Q. In fact, I think you said that you can draw billions of  
5 maps?

6 A. Yes.

7 JUDGE BLACK: Could you give me a moment.

8 (Discussion off the record.)

9 JUDGE BLACK: Thank you for the pause.

10 Q. Dr. Cho, your report states that your methodology produces  
11 a very large set of possible alternative maps using the same  
12 underlying geography and population as the enacted map; is that  
13 correct?

14 A. That's correct.

15 Q. And I think, as you go on to state in your report, "In this  
16 way the simulated maps form a baseline for a comparison and  
17 understanding of the partisan effect of the enacted map"; is  
18 that right?

19 A. That's right.

20 Q. But the problem we have with redistricting is that the  
21 universe of possible maps is astronomically large, isn't it?

22 A. That's not a problem for redistricting. It makes it an  
23 interesting challenge for drawing simulated maps.

24 Q. Well, to put this in context for everybody else, I think  
25 I've heard you say before that the possible number of

1 redistricting maps for a state like Ohio would be exponentially  
2 greater than the total number of seconds in the history of the  
3 universe; is that right?

4 A. No. I said I've used that example, number of seconds since  
5 the beginning of the universe is less than -- you know, is ten  
6 to the 18th, but I didn't say anything about the maps for Ohio.  
7 When I make that reference, I'm making reference to the  
8 unconstrained graph partitioning problem, and this is not an  
9 unconstrained problem.

10 Q. Well, you can't say how many total possible ways the state  
11 of Ohio can be divided into 16 congressional districts, can  
12 you?

13 A. That actually can be calculated. It's a very large number.  
14 But I didn't calculate it.

15 Q. And because the number is so large, what your algorithm  
16 purports to do is to draw a large sample of maps from this  
17 total population that is currently not known; is that right?

18 A. Yeah. It's a large sample. It's a large representative  
19 sample from an unknown distribution.

20 Q. In fact, I think you stated in your report that your  
21 algorithm creates a random walk that is guaranteed to draw a  
22 random sample from a distribution that is quantifiably close to  
23 the space of all possible electoral maps; is that right?

24 A. That's correct.

25 Q. But what you define as feasible or possible in your report

1 is based upon the parameters that you set in your algorithm and  
2 in your code; is that right?

3 A. That's correct.

4 Q. So I want to make sure it's clear exactly what sample  
5 you're drawing here. You are not attempting to draw a  
6 representative sample of all possible congressional districting  
7 maps in the state of Ohio; right?

8 A. Yeah. So ones that don't follow the legal requirements  
9 wouldn't be drawn.

10 Q. And you're not attempting to draw a representative sample  
11 of even all possible districting maps in the state of Ohio that  
12 meet basic legal requirements of contiguity and equal  
13 population, are you?

14 A. No. They're contiguous. They're also equal population as  
15 I describe them.

16 Q. But your sample is not a representative sample of all  
17 possible maps that meet only those two criteria; correct?

18 A. Yeah, it's more constrained than that.

19 Q. What you're purporting to do is draw a representative  
20 sample of all possible maps that meet the specific districting  
21 criteria that you selected; is that right?

22 A. Right. So they're the legal criterion, population,  
23 contiguity and VRA, and then they're the traditional  
24 districting principles as I described them yesterday.

25 Q. And if you use different criteria, you'd end up with a



1 different sample set of maps, wouldn't you?

2 A. You could.

3 Q. Now, Dr. Cho, you agree that the proper simulation  
4 comparison set for the current map is a set of maps that is  
5 created using the same legal criteria that were used to create  
6 the current map, don't you?

7 A. So the same legal criteria and then the other ones that I  
8 mentioned, the traditional districting principles, which I  
9 wasn't putting in the same camp.

10 Q. So to draw any legally valid conclusions from your  
11 analysis, your simulated maps must include the maps that factor  
12 in all the same legal criteria that led to the current map,  
13 doesn't it?

14 A. I think I just said that.

15 Q. Okay. And when we're talking about legal criteria, you've  
16 referred to the various redistricting goals that have been  
17 recognized as valid goals by the U.S. Supreme Court; correct?

18 A. So when I say "legal," I separate those from the  
19 traditional districting principles, but you seem like you're  
20 subsuming them. Yes or no? Because I kept saying that, and  
21 then you keep saying "legal criteria," no longer referencing  
22 the other criteria.

23 Q. Let me be more direct with the question. The districting  
24 criteria that you're talking about is districting criteria that  
25 has been identified by the U.S. Supreme Court; correct?

1 A. Well, some of them. Not all of them. So yesterday I  
2 mentioned incumbency protection, which they've discussed and I  
3 discussed what I did.

4 Q. So if you're trying to use your simulated maps as a  
5 baseline to compare to the enacted map, then in defining what  
6 is a feasible map in your simulation, you'd want to use the  
7 same nonpartisan criteria employed by the enacted map; correct?

8 A. Yeah. So if there's a legal criterion that has to be  
9 satisfied by law, I have those in there. And then if there are  
10 traditional redistricting principles that I specify, and I  
11 discussed how I had those in there. If there are other  
12 criterion that are not discussed by the Court but may be  
13 perfectly fine, I don't have those in there.

14 Q. So if there were traditional districting criteria that the  
15 enacted map follows, you'd want your simulated maps to follow  
16 those same criteria; correct?

17 A. So I had the traditional districting principles, as I  
18 specified. There are other traditional districting principles  
19 that the Court has mentioned. And I think yesterday I said I  
20 looked at the legislative record to see if the Ohio Legislature  
21 cared about any of these things, because they're not required  
22 to do them. So, you know, they rattled off the set in the  
23 legislative record, but a lot of them they never came back to.

24 It's like a lesson. Right? Here's the set. I know the  
25 set too. And then they never mention them, which implies to me

1 they didn't care about them. They're just giving you a set.  
2 Right? So I didn't include everything, if that's what you're  
3 asking me.

4 Q. Your testimony today is that you do not include all of the  
5 traditional redistricting criteria that the Ohio Legislature  
6 considered when enacting the 2011 plan?

7 A. No. My testimony is they listed off the set and they  
8 discussed some of them, and I read in the legislative record  
9 how they discussed them. I got a sense of what went into the  
10 map and what didn't go into the map, because they're not  
11 required to use any of them, actually. They're not required to  
12 keep the counties together, but they -- they chose to. We  
13 talked about it. They said, We're going to do this. So I did  
14 that.

15 They discussed incumbency protection, but it's not like  
16 they're required to do that either. And then they discussed it  
17 and I thought about it. I did that with all of them.

18 Q. You were trying to use the same traditional districting  
19 principles that the enacted map followed so that your  
20 simulation set was an apples-to-apples comparison; correct?

21 A. Yes.

22 Q. Because if you didn't use or follow the same criteria, then  
23 it would be an apples-to-oranges comparison; is that right?

24 A. No, not necessarily. It would be a larger set.

25 Q. Okay. We'll come back to that.

1 Now, in your report, and during your testimony yesterday,  
2 Dr. Cho, you described the criteria that you believe guided the  
3 congressional redistricting in Ohio. Do you recall that?

4 A. Yes.

5 Q. And I think you listed minority districts, preserving  
6 counties, preserving cities, population equality and  
7 compactness; is that right?

8 A. Yes.

9 Q. And you also testified yesterday that you obtained these  
10 criteria from your review of the legislative record and your  
11 belief that these were the neutral criteria employed by the  
12 Ohio Legislature; is that right?

13 A. Yes, I read the legislative record, and these are the  
14 things they discussed.

15 Q. But you admit that you don't know the actual intent of the  
16 map drawers, other than what you inferred from the legislative  
17 record; is that true?

18 A. That's true.

19 Q. And if there's testimony in this case from the drafters of  
20 the plan and the Speaker of the House of the Ohio Legislature  
21 that they considered different criteria, that would have  
22 impacted the criteria you would have included in your  
23 simulation, wouldn't it?

24 A. No, not necessarily.

25 Q. Well, if the legislature considered different criteria than

1 what you put in your simulation, wouldn't you be comparing  
2 apples to oranges?

3 A. So if there's testimony somewhere that says we wanted to  
4 keep ten -- we only wanted to split ten counties, for instance,  
5 that somebody had an e-mail or there's something out there that  
6 says that, and I looked at the map and it only -- it split 23  
7 counties, and then the legislative record says, We're trying to  
8 keep counties together, then it doesn't matter to me that  
9 there's some e-mail somewhere that I don't know about that says  
10 they were trying to do something else.

11 Q. So you're putting your own subjective interpretation as to  
12 what the legislature intended, aren't you?

13 A. No. I read the legislative record. I think it's pretty  
14 objective. They mention some; they didn't mention others.  
15 It's not like I'm treating them differently.

16 I did that with all of the traditional districting  
17 principles. I treated them the same way. I looked at them. I  
18 looked to see if they were mentioned in the legislative record.  
19 I looked at how they mention them in the legislative record. I  
20 did that in the same objective way for all of them.

21 Q. Okay. Well, do you understand from your review of the  
22 legislative record that the Ohio Legislature wanted to created  
23 a majority-minority district in northeast Ohio?

24 A. I understand they wanted to comply with voting rights law.

25 Q. But do you understand from your review of the legislative

1 record that they specifically wanted to create a  
2 majority-minority district in northeast Ohio?

3 A. I don't know what you mean by "majority-minority," because,  
4 to me, when you say that, you're implying they want over 50  
5 percent.

6 Q. That's exactly what I'm implying. Did you see that in the  
7 legislative record when you reviewed it?

8 A. That they want over 50 percent?

9 Q. That they wanted to create --

10 Well, can a district be a majority-minority district if  
11 it's not over 50 percent black voting age population?

12 A. So I think this is kind of a semantic thing, because if  
13 you're saying "majority-minority," that implies that the  
14 majority is the minority. That can happen in lots of ways. So  
15 you can have majority minority in population, for instance.  
16 That's not necessarily considered a voting rights district,  
17 because maybe the BVAP is not high enough. Sometimes the BVAP  
18 can be less than 50 percent, and the Court will recognize that  
19 as satisfying the Voting Rights Act. So I'm not casting a  
20 legal judgment here on what they're thinking, but the words you  
21 use are a little bit confusing to me.

22 Q. Well, Dr. Cho, I understand that your opinions may be that  
23 to comply with the Voting Rights Act, a majority-minority  
24 district doesn't have to be created, but by definition, a  
25 majority-minority district means that the minority population

1 is 50 percent or greater of the population of that district,  
2 doesn't it?

3 A. No. I think there's ambiguity there. Is it majority  
4 population? Is it majority voting age population? Is it  
5 majority citizen voting age population? I don't think that's  
6 particularly not unambiguous.

7 Q. And are you aware of any Supreme Court cases that say that  
8 a majority-minority district can have a minority population  
9 less than 50 percent?

10 A. I think the Court has discussed things like that, yes.

11 Q. In what case did they say that, Dr. Cho?

12 A. I believe in *Georgia v. Ashcroft* they talk about influence  
13 districts and how that can matter.

14 Q. An influence district is not a majority-minority district,  
15 is it?

16 A. No.

17 MR. TUCKER: Let's pull up Joint Exhibit 1, please.

18 Q. And, Dr. Cho, this is the transcript from the House session  
19 on September 15th, 2011, that I believe you testified yesterday  
20 you reviewed and relied upon for identifying the criteria that  
21 the legislature was considering when enacting the plan;  
22 correct?

23 A. Yes.

24 Q. And I want to refer you to page 17 of the transcript, at  
25 line 21 -- and I'll represent to you this is a continuation of

1 Representative Huffman's testimony.

2 Representative Huffman states: "The significant  
3 application in this particular case is that it -- we are  
4 required to draw a majority/minority district in the state of  
5 how when that can be done. And, in fact, the map that you see  
6 before you today in this legislation" --

7 Please continue to the next page.

8 -- "and was presented to the Committee, in fact, does that.  
9 So that's one of the significant requirements by federal law  
10 that we have met when we've drawn this map."

11 Do you see that testimony?

12 A. I do.

13 MR. TUCKER: Now, if you'd also pull up Joint Exhibit  
14 3.

15 Q. Dr. Cho, this is the transcript from the Ohio State Senate  
16 session on September 21st, 2011. Did you review this  
17 transcript?

18 A. I looked at it, yes.

19 Q. And did you rely upon it in helping determine the criteria  
20 that the Ohio legislature was using when drawing the 2011 plan?

21 A. I didn't focus on this one as much as I did on the one that  
22 we just looked at, but I looked at it, yes.

23 Q. Well, let's turn to page ten. Beginning at line 13 -- and  
24 this is the testimony of Senator Keith Faber:

25 "When we were in Cleveland, we heard that it was very



1 important to the community in Cuyahoga County, that we  
2 redistrict a majority-minority district. We thought that was  
3 important too, and this map includes a minority-majority  
4 district, including the Cuyahoga County, Northeast Ohio region.  
5 We thought it was also probably not just a good idea, it was  
6 also going to be required to comply with the Voting Rights Act.  
7 And the Voting Rights Act says, essentially, where you can draw  
8 a continuity of interest minority district you need to do  
9 that."

10 Do you see that testimony?

11 A. I do.

12 Q. So the legislative record reflects a desire by the Ohio  
13 Legislature to create a majority-minority district in northeast  
14 Ohio, doesn't it?

15 A. It does.

16 Q. And you recognize that under the 2011 plan, there is a  
17 majority-minority district in northeast Ohio, isn't there?

18 A. There is.

19 Q. And do you know that there has been a majority-minority  
20 district in northeast Ohio since 1968?

21 A. I didn't know that.

22 Q. But you didn't draw any majority-minority districts in your  
23 maps, did you?

24 A. As I explained yesterday, I created one that's at least 45  
25 percent BVAP, and that was as a result of Dr. Lisa Handley's

1 analysis of what needed to be done to comply with the law. It  
2 could be that the legislature decided that there was something  
3 else that needed to be done that would comply with the law.  
4 That doesn't mean, I don't think, that they're correct.

5 So, for instance, if there was in the legislative record a  
6 statement that said We want to draw a 70 percent BVAP district  
7 in this area, that's not required by law. Right? There's  
8 something that's required by law, which is compliance with the  
9 Voting Rights Act. And as long as you comply with the Voting  
10 Rights Act, it's legally valid in that way.

11 And if somebody says, I want to draw a 70 percent one, well  
12 that may be their prerogative to try to draw 70 percent, but it  
13 doesn't mean I have to draw 70 percent just because they think  
14 they have to draw 70 percent, even if they genuinely believed  
15 70 percent is what is required by law. It's not what they  
16 think is required by law, it's what's required by law.

17 Q. Dr. Cho, in fact, none of your 3 million simulated maps  
18 have a district that even reaches 48 percent black voting age  
19 population; is that correct?

20 A. I believe that's correct.

21 Q. So none of your plans would have complied with an express  
22 goal to create a majority-minority district, do they?

23 A. The -- the express goal is 50 percent BVAP, which, again,  
24 we're quibbling here on what the definition of a minority  
25 district would be or a district that would comply with the

1 Voting Rights Act.

2 You keep saying it has to be over 50 percent. I'm not sure  
3 what you're basing that on.

4 Q. Well, let's assume for this line of questioning, Dr. Cho,  
5 that, by definition, a majority-minority district is a district  
6 where the minority population is the majority, is over 50  
7 percent.

8 A. I got that part.

9 Q. Okay. Assuming that to be the case, then none of your 3  
10 million maps draw a majority-minority district, do they?

11 A. Yes, none of my 3 million maps have a district that is over  
12 50 percent BVAP.

13 Q. Rather, you decided to use a 45 percent BVAP number in your  
14 simulation; correct?

15 A. Well, that was the lowest. It could be that it would  
16 create something that's higher, but it didn't.

17 Q. Yeah, we know none of them got up to 48 percent; right?

18 A. Yeah.

19 Q. And this criteria didn't come from your review of the  
20 legislative record. It came from one of plaintiffs' other  
21 experts, didn't it?

22 A. Well, I think I describe -- so if it's a legal criterion, I  
23 don't -- it doesn't matter what the legislature thinks is  
24 legal. It's a legal criterion. Right? That's different than  
25 a traditional districting principle, which they don't have to

1 do, like they have to do with the legal criterion. But the  
2 legal criterion, if you've satisfied the law, you've satisfied  
3 the law.

4 With the traditional districting principles, it's  
5 different, because they don't have to do it. So then if they  
6 don't have to do it, then I'm interested in, well, what did  
7 they do? Did they care about it? Because they're allowed to  
8 care about it as a neutral criterion. So if they cared about  
9 this neutral criterion, how did they care? But with the law --  
10 you know, if the law is you have to have a certain percentage  
11 and they decide, well, I want to have 70 percent, that doesn't  
12 matter.

13 Q. Well, Dr. Cho, District 11 in the current map is not a 70  
14 percent BVAP, is it?

15 A. Well, I'm just saying 70 percent, 52, 50 -- it doesn't  
16 matter what they're thinking. If you comply with the law, you  
17 comply with the law.

18 Q. And are you aware of whether this district has ever been  
19 challenged under Section 2 of the Voting Rights Act?

20 A. My understanding is nobody knows what the number has to be,  
21 and that's why there was an analysis of what the number should  
22 be; otherwise, we're just guessing.

23 Q. Dr. Cho, I apologize for cutting you off. That wasn't my  
24 question. We are on a timed trial here.

25 But my question was, are you aware whether or not there's

1 been any Section 2 challenge to this district under the Voting  
2 Rights Act?

3 A. I don't believe there has been.

4 Q. So you just accepted and employed the 45 percent BVAP  
5 number in your simulation per the direction of plaintiffs'  
6 counsel; isn't that true?

7 A. Yes, that's what I was informed to do.

8 Q. You didn't perform any independent analysis to determine  
9 if, in fact, a 45 percent BVAP district in northeast Ohio would  
10 comply with the Voting Rights Act?

11 A. Yeah, that's not within my expertise.

12 Q. Dr. Cho, regardless of whether or not a majority-minority  
13 district was required by law to be created under the Voting  
14 Rights Act in northeast Ohio, if the legislature believed that  
15 it was required by law to do so, then that would be a  
16 reasonable thing for them to do; correct?

17 A. Well, certainly if they believed that they had to do  
18 something that was required by law, I would never fault them  
19 for trying to comply with the law, because why would I do that?  
20 I wouldn't fault them for that. Whether it's true what they're  
21 trying to do, that's a different matter.

22 Q. And, Dr. Cho, had you required each one of your maps to  
23 have a district that had a 50 percent or greater BVAP, you  
24 would have ended up with entirely different maps, wouldn't you  
25 have?

1 A. I suppose, because none of mine have 50 percent BVAP.

2 Q. And your maps -- that would affect the partisan composition  
3 for each of your simulated maps, too, wouldn't it?

4 A. That I wouldn't know until after I did it.

5 Q. But you didn't do it in this case?

6 A. I did not do it in this case, no.

7 Q. Now, Dr. Cho, you've also heard the term "minority  
8 influence district" as well, haven't you?

9 A. I have.

10 Q. And is that where the population of the district has a  
11 minority population that will allow them to have at least an  
12 influence on the elections in that district?

13 A. That's the idea.

14 Q. And it can also be a valid redistricting goal for the  
15 legislature to create minority influence districts, too;  
16 correct?

17 A. Yeah, they could do that.

18 Q. And are there any districts in the 2011 plan in Ohio that  
19 can be considered a minority influence district?

20 A. I didn't focus on that, but I provided that as output, and  
21 I think there's often an influence district.

22 Q. Are you aware of whether any other districts under the 2011  
23 plan, other than the district in northeast Ohio, are  
24 represented by an African-American member of Congress?

25 A. I think so. I looked this up at some point, but I don't

1 quite remember.

2 Q. Are you aware that District 3 in Franklin County has a BVAP  
3 of over 30 percent?

4 A. Yes. And I think a lot of my districts in that area also  
5 had a BVAP of about 30 percent.

6 Q. Are you aware, though, that many of your maps have  
7 districts that only have a 17 percent BVAP?

8 A. It varies, yes.

9 Q. So if the evidence in this case shows that there was an  
10 intent by the Ohio legislature to create a new district in  
11 Franklin County that would be considered a minority influence  
12 district, that is not something that you factored into your  
13 algorithm, is it?

14 A. I didn't preclude that from happening, and I didn't see  
15 anywhere that people were talking about trying to create such a  
16 district. I think such a district often appears without even  
17 trying.

18 Q. But your algorithm made no specific effort to create a  
19 minority influence district in the Franklin County area, did  
20 it?

21 A. This is correct.

22 Q. Now, another criterion that was discussed yesterday, and  
23 that's required by law, is equal population; correct?

24 A. Correct.

25 Q. And that's required for one-person one-vote requirements?

1 A. That's where it originates from, yes.

2 Q. And so because this is a legal requirement, this is  
3 something that you tried to comply with in your simulation; is  
4 that right?

5 A. That's correct.

6 Q. Now, you recognize that the current map in Ohio has a  
7 population deviation of, at most, plus-minus one person between  
8 districts; right?

9 A. Yes.

10 Q. So that's as nearly as practicable equal in population in  
11 Ohio; right?

12 A. I wouldn't put that phrase on it, no.

13 Q. Well, you have 16 districts, and if the total population of  
14 the state of Ohio can't be divided into 16 equal populous  
15 districts, then how can you get closer than plus-minus one  
16 person?

17 A. I'm not saying you can get closer. But that phrase "as  
18 nearly as is practicable" wouldn't mean that you have to be  
19 within one person.

20 Q. That wasn't my question, Dr. Cho. My question is, is the  
21 Ohio map, as nearly as is practicable, equal in population?

22 A. That's what I'm saying. You're saying it's within one  
23 person, and I'm saying that is not the definition of "as nearly  
24 as is practicable," because you can deviate for other reasons.

25 Q. You're not disagreeing that the Ohio map can't be any more



1 equal in population than it is; right?

2 A. Yes.

3 Q. But none of your maps have districts with population  
4 deviation anywhere close to plus or minus one person, do they?

5 A. I think the smallest is .3 percent.

6 Q. Okay. And that's somewhere around 2000 people; is that  
7 right?

8 A. Yeah. I'm not good at that kind of math.

9 Q. That actually surprises me, Dr. Cho.

10 A. No, I'm horrible at that, actually.

11 Q. Some of your maps go as high as one percent; right?

12 A. Yeah.

13 Q. If I told you that's around 7,000 people, would you have  
14 any reason to disagree with that?

15 A. Yeah, I'm all about those approximations.

16 Q. So are you aware of any state in the country whose  
17 congressional districting map has a population deviation of  
18 between 2,000 and 7,000 people?

19 A. I haven't done that analysis.

20 Q. And are you aware that a plan with a population deviation  
21 of only 17 people has been held unconstitutional?

22 A. Yeah. There's no number that will get you  
23 constitutionality, as I understand it.

24 Q. But as I understood your testimony yesterday, you believe  
25 that your use of a one percent population deviation threshold

1 is still comparable to the enacted map; is that right?

2 A. That's correct, but not for the reason that one percent is  
3 the same as equal, meaning zero or one person.

4 Q. And I understand your position in this case is that any map  
5 that's within one percent population deviation can be brought  
6 to population equality at the census block level without  
7 compromising any other traditional districting principles; is  
8 that right?

9 A. Any of the other ones that I had used, yes.

10 Q. Although when you're trying to equal out population, that  
11 might require you to have to split a particular municipality;  
12 correct?

13 A. No. I mean, there are municipalities that are already  
14 split. You can just use those. You don't have to split a  
15 different one.

16 Q. And I believe you referred to these maps when you would  
17 equal out population as buddy maps?

18 A. Yes.

19 Q. You didn't create any buddy maps for this case, did you?

20 A. I did not.

21 Q. So, Dr. Cho, you believe that your simulated maps are still  
22 comparable to the enacted map on population deviation even  
23 though you use one percent; right?

24 A. No, that's not what I said. The one percent population, as  
25 I explained yesterday, is not what the legislature did. And I

1 explained that what we're interested in here is the partisan  
2 effect. And I'm measuring partisan effect without introducing  
3 additional unknown measurement error from going down to a  
4 geographic unit where we don't know how that -- we don't know  
5 the partisan breakdown of that other unit. We can do that to  
6 equalize the population, but then we won't know what happens as  
7 far as partisan effect.

8 Q. But you don't know what the partisan effect will be of  
9 zeroing out the population for each of your maps, do you?

10 A. Well, I explained this yesterday. If you're down to one  
11 percent, and that would be the maximum, I explained why, you  
12 know, you can make this very logical argument that once you  
13 zero out, you're not going to change the partisan effect. I  
14 mean, it's possible, and I explained a scenario under which  
15 that would be possible, but that scenario is so unlikely that I  
16 don't think it -- I don't think it happened. Or if it  
17 happened, it almost never happened. And if it did happen, I  
18 would find it really hard to believe that it happened for all 3  
19 million of my maps. And even if it did happen for all 3  
20 million of my maps, it would barely move my histogram at all.

21 Q. I understand, Doctor. Your testimony is that I can zero  
22 out population and it's going to have little effect on the  
23 output of your maps; is that right?

24 A. Little effect on the outcome of my analysis.

25 Q. Dr. Cho, yesterday you talked about your testimony in the

1 case in Pennsylvania. Do you recall that?

2 A. Yes.

3 Q. And in that case, the Pennsylvania congressional  
4 redistricting plan was being challenged in two different  
5 lawsuits, one in federal court and one in state court. Do you  
6 recall that?

7 A. Yes.

8 Q. And in the state court case you were testifying on behalf  
9 of the state legislature; correct?

10 A. Yeah. You were my attorney.

11 Q. And you were offering opinions criticizing two of the  
12 plaintiffs' experts in that case. Do you recall that?

13 A. Yes.

14 Q. One was Dr. Jowei Chen; correct?

15 A. Yes.

16 Q. And one was Dr. Wesley Pegden, P-e-g-d-e-n?

17 A. Yes.

18 Q. And both Drs. Chen and Pegden also have algorithms that are  
19 designed to simulate maps; correct?

20 A. Definitely for Dr. Chen. Dr. Pegden was trying to do  
21 something a little bit different, but in the same ballpark.

22 Q. Dr. Cho, you recall testifying at the trial in the  
23 Pennsylvania state court case; correct?

24 A. Yes.

25 Q. And at that trial you were under oath just as you are

1 today?

2 A. Yes.

3 Q. And you agreed to tell the truth; right?

4 A. Yes.

5 Q. And you did tell the truth at that trial; correct?

6 A. Yes.

7 MR. TUCKER: Your Honor, I have copies of the  
8 transcript from the day of trial for Dr. Cho's testimony in  
9 Pennsylvania. May I approach the witness?

10 JUDGE BLACK: Yes. Thank you.

11 Q. And, Dr. Cho, isn't it true that you criticized Dr.  
12 Pegden's methodology in Pennsylvania because he only used a one  
13 percent or two percent population deviation; correct?

14 A. My criticism of Dr. Pegden was that he created maps that  
15 had two percent and then he created maps that had one percent.  
16 And his argument was that when you go from two percent to one  
17 percent, you see a certain effect direction. And he argued  
18 that when you go from one percent to zero percent, that effect  
19 would continue in that same direction. And that's the argument  
20 that I criticized, that you go from two percent to one percent,  
21 he sees a direction, and he assumes that direction has to  
22 continue from one percent to zero, and that argument is not  
23 logically true.

24 MR. TUCKER: Let's pull up page 1218 of the trial  
25 transcript from Pennsylvania.

1 Q. And beginning at the bottom, on line 21, the question was,  
2 "So what, in your mind, is -- is idiosyncratic or unique about  
3 redistricting that limits the application of this theorem?"

4 And your answer: "So one of the limitations is the way he  
5 defined what's a valid map is not, in my opinion, the right way  
6 to do it because he leaves out -- for instance, kind of like  
7 Dr. Chen, he leaves out incumbency protection. But Dr. Pegden  
8 leaves out even more. He left out preserving cities. He  
9 didn't preserve" equal population "at the same level that the  
10 current map preserves it at. He uses two percent. Current map  
11 is at zero. He tried one percent. The current map is at zero.

12 "So we're comparing something else, because if you're  
13 constrained to have population equality and then you say, Okay.  
14 The maps I'm going to compare to constrain...at a different  
15 level, it's like, Well, do you -- do you get some partisan  
16 effect from that, you know, relaxing of that constraint; do you  
17 get some partisan effect from not preserving cities?"

18 Was that your testimony in the Pennsylvania case?

19 A. It was. And I think if you read the rest of it you'll see  
20 that I was explaining exactly what I explained to you just now,  
21 his argument was two percent to one percent, it's the same  
22 direction from one percent to zero, and that's just not true.

23 Q. But Dr. Pegden used two percent and one percent population  
24 equality thresholds in Pennsylvania, and you found that his  
25 methodology was not reliable; correct?

1 A. It's not his methodology -- well, okay. I also have issues  
2 with his methodology, but the thing I'm describing there is he  
3 made an argument that you go from two percent to one percent  
4 and it produces a certain direction, and that direction will  
5 continue from one percent to zero, and that is false. It's in  
6 there.

7 Q. Dr. Cho, you also authored a report in the Pennsylvania  
8 state court case. Do you recall that?

9 A. Yes.

10 MR. TUCKER: Your Honors, may I approach the witness?

11 JUDGE BLACK: Yes. Thank you.

12 Q. All right. Dr. Cho, is what I handed you a copy of your  
13 report that you authored in the Pennsylvania state court case?

14 A. It is.

15 Q. And the statements in that report are accurate; correct?

16 A. Correct.

17 Q. I want to refer you to page 11 of your report. Do you see  
18 the paragraph immediately below the block quote?

19 A. The one that says, "However, the population deviation"?

20 Q. Yes.

21 A. Which?

22 Q. So right below the block quote you say, "However, he does  
23 not require his bag of alternatives to meet all of the same  
24 criteria (preserving cities and incumbent protection), and on  
25 other criteria, such as population equality, he allows his

1 candidate maps to systematically be worse than the candidate  
2 map."

3 A. I see it.

4 Q. "This decision biases what appears in the candidate set of  
5 comparison maps."

6 A. I see it, yep.

7 Q. Did I read that correctly?

8 A. Yes.

9 Q. And if you turn to page 12, in the middle of the paragraph  
10 that continues from the previous page, you state, "His third  
11 point is that the threshold does not" --

12 A. Where is this? I'm not --

13 Q. They're bringing it up on your screen, if you look.

14 A. Okay.

15 Q. "His third point is that the threshold does not affect the  
16 outcome." Do you see that?

17 A. Yes.

18 Q. And then further down below, the last two sentences, you  
19 state: "This statement is a broad and sweeping claim that is  
20 not backed up with empirical evidence. He simply asserts the  
21 fact, which is non-obvious. Partisan bias is not a proxy for  
22 population deviation. The two do not move in lock step with  
23 one another."

24 That's what you said in your report in Pennsylvania;  
25 correct?



1 A. Yeah, and that's exactly what I've been saying to you is  
2 that he says that the direction of bias keeps going in one  
3 direction, from two percent to one percent, from one percent to  
4 zero, and that's a logically flawed argument. That's the  
5 argument I'm making there.

6 Q. But, Dr. Cho, you didn't do any analysis to determine if  
7 you zeroed out population, if it would affect the partisan  
8 outcome of your maps, did you?

9 A. So this is a completely different argument. Because he did  
10 two percent, noticed the direction from two percent to one  
11 percent, and said that implied it's the same direction from one  
12 percent to zero. I did one percent, and I'm explaining to you  
13 why at one percent you can zero it out and not have it have a  
14 material effect on your results.

15 Q. But you provide no analysis to support that, do you?

16 A. I supplied a very logical argument for why that wouldn't  
17 happen.

18 Q. But no analysis?

19 A. I did not actually do it, but I supplied a logical  
20 analysis.

21 Q. Dr. Cho, let's discuss a little bit about incumbency  
22 protection.

23 A. Okay.

24 Q. You admit that your simulation makes no specific effort to  
25 protect incumbents; correct?

1 A. True.

2 Q. And, in fact, you have no idea how many incumbents are  
3 paired in any of your 3 million simulated maps; right?

4 A. I didn't check.

5 Q. But you agree that incumbency protection is a traditional  
6 districting principle; right?

7 A. So I think we've talked about this a bit already, but when  
8 it complies with the law, when it complies with this notion of  
9 you're doing this for the voters, then it can. If you're doing  
10 it as a cover for entrenchment or you're doing it purely for  
11 partisan motivation, then it's not.

12 Q. You agree that incumbency protection is not  
13 unconstitutional?

14 A. Again, that would depend on how -- I mean, you used the  
15 word, and I just made it more precise, and you want to go back  
16 to this unprecise definition. So I would not say that, no.

17 Q. Well, at a minimum, incumbency protection involves avoiding  
18 the pairing of incumbents in the same district; right?

19 A. That could be one way to operationalize that, yes.

20 Q. But you also agree that incumbent protection is not simply  
21 not having another incumbent in the same district; it is the  
22 drawing of lines that the incumbent retains his core  
23 constituency?

24 A. So I have said in the political science literature that's  
25 certainly one way that we conceive of it, yes.

1 Q. That's clear in political science literature, isn't it?

2 A. Absolutely.

3 Q. Now, my understanding of your testimony on direct, Dr. Cho,  
4 is that you did not factor in incumbency protections because  
5 you do not believe that it was a priority of the Ohio  
6 Legislature when enacting the 2011 plan; is that right?

7 A. Well, when I looked at the legislative record, I thought  
8 they made that pretty clear.

9 Q. So part of it, I think, is what you just said, that you  
10 gleaned that from reviewing the legislative record; is that  
11 right?

12 A. Yes.

13 Q. But you also said that you believe that there was no intent  
14 to protect incumbents, because the plan does not maximize  
15 protection of incumbents. Do you recall saying that yesterday?

16 A. Well, that's another piece of evidence, because, first, he  
17 says you know, Kucinich, he doesn't have a district. They're  
18 not protecting Kucinich.

19 And then they say: We paired some people. We paired more  
20 people than we needed to pair.

21 And then he said, We didn't even intend to do that. It  
22 just happened.

23 So when I read those, especially that way, you know, one  
24 right after the other, that was my feeling, yes.

25 Q. But you'd agree that a plan doesn't necessarily have to

1 protect every incumbent possible for incumbency protection to  
2 still have been one of the priorities of the legislature, do  
3 you?

4 A. Yeah, it could be. I didn't have see any evidence of that.  
5 They seem pretty clearly to be disavowing that they were trying  
6 to do that.

7 Q. Well, Ohio is losing two congressional seats following the  
8 2010 Census; right?

9 A. Yes.

10 Q. It's going from 18 to 16 seats.

11 A. Correct.

12 Q. So at least two incumbent pairings were going to be  
13 required?

14 A. Right. And they did three.

15 Q. Well, in Pennsylvania, you recall that the state, after the  
16 2010 census, was going from 19 seats to 18 seats?

17 A. Correct.

18 Q. And you inferred in that case that incumbency protection  
19 was a goal of the legislature because there was only one  
20 pairing?

21 A. Well, it's more, you know, a totality of circumstances.  
22 Right? So, first, the plaintiffs asserted it, that there was  
23 incumbency protection. And I'm on the defense. I'm not  
24 reading the legislative record in Pennsylvania. But they  
25 asserted it, the plaintiffs. So I was like, okay, they

1 asserted it.

2 And then I noticed, oh, they didn't pair it. They did, you  
3 know, minimum pairing or -- yeah, minimum pairings. Right?  
4 They didn't pair more people than they needed to. The  
5 plaintiffs have already asserted that they were doing it. So,  
6 you know, as part of the defense, I was like, "I don't know. I  
7 don't see otherwise either."

8 Q. But, Dr. Cho, do you also recall inferring that incumbency  
9 protection was one of the goals of the Pennsylvania Legislature  
10 because there was only one pairing?

11 A. Yes. So I think I just explained it to you. The  
12 plaintiffs asserted it, and it's against their interest, so as  
13 part of the defense, I wasn't going to say, Hey, take that  
14 back; that's bad for you.

15 They asserted something that was bad for them, so I assumed  
16 they, you know, independently decided that they had evidence of  
17 that. And then I noticed that they didn't do any pairings  
18 that, you know, they didn't have to. So I thought, okay, I'm  
19 with you.

20 Q. So here you refused to make the same inference simply  
21 because the state paired three sets of incumbents when only two  
22 were required?

23 A. So, again, I'm talking about the whole picture. You keep  
24 bringing back little pieces. Right? So the whole discussion:  
25 Kucinich doesn't have a district. Kucinich has to run.

1 Kucinich wins his district, then he wins his district. But  
2 it's not Kucinich's district. He doesn't own a plot of land in  
3 Ohio. He has to run.

4 And then they said, We paired three sets of incumbents.  
5 You know, they didn't have to pair three sets. And then he  
6 goes on -- I mean, he's still talking. And he goes on. He  
7 says, We didn't even intend to do that; it just happened.

8 Q. So do you think that the rest of the incumbents weren't  
9 paired was an accident?

10 A. Well, I don't know if it was an accident or not, but there  
11 is Representative Huffman saying, "I didn't intend to do this."  
12 So --

13 Q. And are you aware --

14 A. I don't intend to do it either, but I don't prevent it from  
15 happening. If it happens, it happens. Just like he says, it  
16 just happened. So, okay.

17 Q. Are you aware of Representative Huffman's role in the map-  
18 drawing process?

19 A. No.

20 Q. So if it was a priority of the legislature to protect  
21 incumbents around the state, and we have testimony from the  
22 record in this case on that point, is your position that we  
23 should ignore that evidence because the legislature paired  
24 three sets of incumbents and not two?

25 A. So I did what I thought was reasonable to do given the

1 legislative record. Now, in my view, they disavowed this  
2 "we're protecting incumbents" idea. And why they did that, if  
3 they really were -- but, you know, you could -- if you go on  
4 the legislative record and say, Hey, look we're protecting  
5 incumbents, it kind of looks bad.

6 Maybe they didn't want to look bad. I don't know. Maybe  
7 they were trying to do it and they wanted to say they weren't  
8 trying to do that. I don't know that either. But they said  
9 they weren't trying to do it. And so -- in that way -- in that  
10 specific way they said, "We're not trying to do it."

11 And so I'm not trying to do it. If you have other  
12 evidence, people are sending e-mails saying, Yeah, we're going  
13 to protect all of the incumbents or We're going to do this or  
14 We're going to do that, that's actually immaterial to what I'm  
15 doing, because I'm not required to do that.

16 And, actually, that idea is already encompassed in my  
17 simulations. Because if they're trying to do it or if they're  
18 not trying to do it, I set a baseline that is nonpartisan.  
19 Right? And so if they're trying to do it -- it's just like,  
20 you know, the military base thing. If they're trying to do it  
21 and it's legitimate --

22 Q. Okay. I apologize, but we are on a timed trial here and I  
23 want to --

24 A. But I'm not done answering your question.

25 JUDGE BLACK: Let her finish her answer.

1 Q. Proceed, please.

2 A. And so if they're trying to do it, it's just like the  
3 military base. They're trying to do something. And these  
4 things, they have partisan effects, all of them, regardless of  
5 whether they intended to have a partisan effect or not. And so  
6 once you see the baseline that has no partisan effect, then you  
7 can factor in all these other things, all these other things  
8 known and unknown, with e-mail, without e-mail. And then you  
9 can say, All right, this thing -- you know, supposedly all  
10 these nonpartisan decisions moved the map, the partisan effect  
11 of the map. And so they're in there. They're in my analysis.

12 Q. So, Dr. Cho, you just stated, though, that incumbency  
13 protection, if that was a goal, that could have a partisan  
14 impact on the map; correct?

15 A. Yeah, because incumbency protection can be a very partisan  
16 goal. It can also be a nonpartisan goal.

17 Q. So if there's evidence in this case that incumbency  
18 protection was a priority, and if you leave out incumbency  
19 protection from your simulation, then your maps aren't an  
20 appropriate baseline to compare to the enacted map, are they?

21 A. That's not true, because if they had incumbency protection  
22 in any way, in any form -- first of all, we don't know what the  
23 partisan effect is. It might be very partisan. Maybe they  
24 only have the interests of the voters in mind and they're not  
25 thinking partisan at all. But that partisan effect is picked



1 up in my analysis.

2 Q. But, Dr. Cho, if you leave out incumbency protection, and  
3 it is demonstrated incumbency protection was one of the  
4 priorities of the legislature, then you don't know if the  
5 partisan bias in the enacted plan is the result of incumbency  
6 protection or some other improper purpose; correct?

7 A. Well, I also don't know if incumbency protection, as you  
8 were saying it, is some partisan -- you know, cover for some  
9 partisan goal like entrenchment. And that I wouldn't factor  
10 into my simulation because that would not be a legal criterion.

11 Q. Well, isn't this exactly what you said in Pennsylvania, Dr.  
12 Cho?

13 A. What is that?

14 Q. Well, let's take a look at your trial testimony, again,  
15 from Pennsylvania.

16 Now, we've already talked a little bit your criticism of  
17 Dr. Pegden in Pennsylvania. Now I want to talk a little bit  
18 about your criticisms of Dr. Jowei Chen. Okay?

19 A. Okay.

20 Q. Do you recall Dr. Jowei Chen was an expert for the  
21 plaintiffs; correct?

22 A. Correct.

23 Q. And he generated an algorithm that simulated two sets of  
24 500 maps; do you recall that?

25 A. I don't remember the number, but that's probably right.

1 Q. You don't dispute that?

2 A. Not without looking it up, I don't.

3 Q. And, in fact, do you recall concluding that neither of his  
4 sets were properly comparable against the enacted map in  
5 Pennsylvania?

6 A. I had a lot of issues with his simulations, yes.

7 Q. And one of those issues was that his first set did not  
8 include incumbency protection; correct?

9 A. Yeah. Especially after he asserted that you needed to,  
10 yes.

11 Q. I want to refer you to page 1178, beginning at line 5. And  
12 the question was:

13 "Okay. And so why, in your view, is Set 1 not an  
14 appropriate set of maps to compare against Act 131?

15 And your answer: "Because it left out incumbency  
16 protection" --

17 And then as your answer continues: "-- which is  
18 constraining, obviously, on what kind of maps are drawn. So --  
19 so if they don't use it, they're leaving out a constraint that  
20 the map drawers who used 131 used. And so then they aren't  
21 comparable because, then, you're comparing apples to oranges.  
22 Right? You have to use the same -- the same constraints."

23 That was your testimony in Pennsylvania; correct?

24 A. Correct. And in Pennsylvania they asserted that this is  
25 something that went into the map drawing.

1 Q. And, again, if it was asserted in this case, and there's  
2 evidence in this case that it's something that went into the  
3 map drawing and you didn't include it in your simulation, by  
4 your own testimony, you'd be comparing apples to oranges,  
5 wouldn't you?

6 A. No. Because we're -- we're, again, in this area of what  
7 are we talking about when we say incumbency protection. And  
8 there's a very clear distinction, which is, when you're doing  
9 it for the voters and when you're using it as a cover for  
10 entrenchment. And I keep bringing up that distinction and you  
11 keep leaving it out.

12 Q. Well, let's continue on, Dr. Cho.

13 Later on page 1178, beginning at line 18, the question:

14 "Okay. Dr. Cho, do you agree with the manner in which Dr.  
15 Chen defines incumbency protection in his report?"

16 And your answer: "He defines it as the 17 incumbents have  
17 to be in separate districts. To me, in political science, our  
18 understanding of incumbency protection is not just that the  
19 incumbents have to be in different districts. One of the  
20 reasons we have" --

21 Please continue to the next page.

22 "one of the reasons incumbency protection is used a lot is,  
23 for instance, if you want to get a map passed, a lot of times,  
24 you have to satisfy certain people. And sometimes that is --  
25 translates to protecting incumbents, meaning they -- they will

1 feel happy with their district.

2 "And they wouldn't feel happy with their district, for  
3 instance, if you -- just -- just because you haven't paired  
4 them with another incumbent. They want a certain kind of  
5 district composition. And so that affects, for instance, the  
6 partisan metrics of the plans that are drawn.

7 "So if a plan is drawn with incumbency protection, that  
8 affects the partisan -- the partisan metrics. And so if you  
9 leave it out, then you might say, Oh, this was obviously  
10 partisanship when it was, at least partly, incumbency  
11 protection."

12 Again, that was your testimony in Pennsylvania; correct?

13 A. It was.

14 Q. And, Dr. Cho, had you factored incumbency protection in  
15 your simulation, again, you'd end up with 3 million  
16 different-looking maps, wouldn't you?

17 A. Well, I wouldn't know it until I tried it. And regardless  
18 of whether different or not, we wouldn't know what the partisan  
19 effect was just by saying that they're different. And, also,  
20 you know, Pennsylvania was a completely different case. We're  
21 in Ohio. And in Ohio, there are different claims that are  
22 made. And in Pennsylvania, you know, given the totality of  
23 what was going on, what the plaintiffs asserted, what was done  
24 in the simulation, how it was done, is completely different.

25 Q. So in Pennsylvania incumbency protection was a valid goal,

1 and it might be one of the explanations for the partisan bias,  
2 but in Ohio it's not a valid goal, and can't explain partisan  
3 bias; that's your testimony?

4 A. No, that is not my testimony. In Pennsylvania the  
5 plaintiffs asserted that incumbency protection was at play.  
6 They asserted that. And then in Pennsylvania they paired --  
7 you know, they did the maximum numbers of -- or the minimum  
8 numbers of pairings that they could possibly have done. Right?

9 In Ohio we have Representative Huffman talking about how  
10 they didn't do it, and they didn't do -- they didn't pair  
11 everybody that they needed to. They did more than that.

12 So, you know, in addition to not being, you know, at  
13 minimum, not maximum incumbency protection, you know, they  
14 didn't do that. And then they said they didn't even intend to  
15 do that lower level of incumbency protection, that it just  
16 happened.

17 And it's not as if you have to protect incumbents. You  
18 don't have to protect them. You can if you do it in the  
19 interest of the voters, but, you know, there is a form that is  
20 legally valid or, you know, the form that the Supreme Court has  
21 said you can do, and then there's this other form, which I  
22 think everybody can understand is -- it's just naked  
23 partisanship. And one is valid and the other is not. And, of  
24 course, if you, you know, use the nakedly partisan version of  
25 incumbency protection, it affects what you get out of your map.

1 Q. So, Dr. Cho, just to conclude, regarding your simulation,  
2 the enacted map has exactly equal population, but your maps, at  
3 best, have .3 percent population deviation?

4 A. Correct.

5 Q. And some as high as one percent?

6 A. Right. I think, technically, they all have to be below one  
7 percent, so --

8 Q. Some are pretty close to one percent?

9 A. Yes.

10 Q. And the enacted map has a majority-minority district with a  
11 BVAP of over 50 percent, but none of your maps do, do they?

12 A. Correct.

13 Q. And the enacted map protected all but three sets of  
14 incumbents, but your map makes no effort to protect incumbents;  
15 isn't that right?

16 A. It makes no effort to not either.

17 Q. Well, Dr. Cho, I want to shift gears a little bit and talk  
18 about the algorithm that you ran in this case. The algorithm  
19 that you used to simulate your three million congressional maps  
20 for Ohio is something you've been working on for a number of  
21 years?

22 A. I wouldn't know how to quantify how long I've been working  
23 on it.

24 Q. And your report indicates that your algorithm is an  
25 evolutionary algorithm. Do you recall seeing that?

1 A. It's an evolutionary Markov chain Monte Carlo algorithm,  
2 which I would not characterize as an evolutionary algorithm.

3 Q. So when you use the phrase "evolutionary algorithm" in your  
4 report, that's not really accurate, is it? It's not an  
5 evolutionary algorithm?

6 A. No, it is absolutely accurate. It's an evolutionary Markov  
7 chain Monte Carlo algorithm. That is not an evolutionary  
8 algorithm. I know it has that same word. But this is a very  
9 technical thing, and "evolutionary algorithm" has a very  
10 technical definition, and this is not that.

11 Q. One of the things I believe you testified yesterday is that  
12 the algorithm you employed in this case is very different from  
13 what you called your PEAR algorithm, P-E-A-R, correct?

14 A. It has elements that I developed for PEAR. It is  
15 different.

16 Q. Well, the PEAR algorithm is an optimizer, you said; right?

17 A. Yes, it's an optimization algorithm.

18 Q. It's trying to optimize some particular parameter or  
19 criteria?

20 A. Correct.

21 Q. And in this case your algorithm is a sampler?

22 A. Correct.

23 Q. Now, in order to implement your algorithm for purposes of  
24 this case, you had to run code; correct?

25 A. Correct.

1 Q. The algorithm is just a general procedure?

2 A. The algorithm is just a general procedure? I never call my  
3 algorithm just a general procedure, but you can keep going and  
4 I can figure out what you mean.

5 Q. Is it a set of steps?

6 A. Yes.

7 Q. Okay. But you need the code to actually implement the  
8 algorithm?

9 A. Yes.

10 Q. And you wrote your code in C?

11 A. C++.

12 Q. And the code that you provided in this case was not in a  
13 single C file, was it?

14 A. Okay. It couldn't have been that way, but yes, it was not.

15 Q. It's sort of a set of different parts of code that are  
16 linked together? Is that a fair representation?

17 A. Not really.

18 Q. Well, how would you describe it?

19 A. Well, it comes in different files, if that's what you're  
20 asking.

21 Q. So there are different multiple files -- there are  
22 different parts of the code that, then, have to work together?

23 A. Yeah. Some are what we'd call, you know, .c files, some  
24 are .h files. Some are, you know, .o files. Yes, it  
25 typically -- it comes in pieces, I guess.



1 Q. And is it true that to run the code in this case you  
2 executed certain things from the command line?

3 A. Yes.

4 Q. And did you change certain functions of the code at the  
5 command line?

6 A. They're called parameters.

7 Q. You changed some parameters at the command line when you  
8 ran the code; correct?

9 A. I didn't change the parameters. I set the parameters.

10 Q. Okay. How many parameters did you set at the command line?

11 A. I couldn't given you the number offhand, but I gave you --  
12 we've given that to you prior to today.

13 Q. You kept a recording of all the things you entered into the  
14 command line?

15 A. Yes.

16 Q. And you're indicating today that you produced that in this  
17 case?

18 A. Yes.

19 Q. Where was that produced?

20 A. I assume you got it from counsel.

21 Q. Sure. But is there a particular file that that came in?

22 A. I don't know, because I didn't give it to you I gave it to  
23 them and I assume they gave you something.

24 Q. Now, you disclosed certain parameters written to your code  
25 in your report; correct?

1 A. Correct.

2 Q. And I think these are some of the ones we've already talked  
3 about. For example, none of your maps would split more than 23  
4 counties; correct?

5 A. Correct.

6 Q. And your maps all preserve cities to at least 96.7 percent  
7 threshold; correct?

8 A. 78, I think.

9 Q. You're more exact than I am.

10 But, Dr. Cho, there are numerous parameters of your  
11 algorithm that are not disclosed in your report; correct?

12 A. I don't believe so.

13 MR. TUCKER: Your Honors, may I approach the witness?

14 JUDGE BLACK: Yes. Thank you. Why don't you just  
15 hand them to me.

16 MR. TUCKER: I'm not falling into that trap.

17 Q. Dr. Cho, I've handed you what's been marked as Intervenor's  
18 Exhibit I5.

19 A. Okay.

20 Q. And this is a letter from Emily Zhang to Patrick Lewis  
21 dated October 12th, 2018. Do you see that?

22 A. I do.

23 Q. Have you seen this letter before?

24 A. Yeah, I saw it at deposition.

25 Q. And on page two there's a heading "Report of Wendy Cho,

1 Ph.D." Do you see that?

2 A. I do.

3 Q. And on point four underneath that heading there's a  
4 discussion of certain operative parameters. Do you see that?

5 A. I do.

6 Q. And those are the ones disclosed in your report; correct?

7 A. In my report or right here?

8 Q. In your report. The population deviation, compactness,  
9 county/town?

10 A. Oh, you mean --

11 Q. You discuss those --

12 A. When I say "parameters," I'm referring to those values,  
13 .01, .85. I didn't disclose those in my report. Those are  
14 disclosed here.

15 Q. And then further underneath it says, "Further, for your  
16 convenience, additional incidental parameters are provided as  
17 follows."

18 Do you see that?

19 A. I do.

20 Q. And on the first line there's something called "weights."

21 A. Yes.

22 Q. And a bunch of numbers?

23 A. Yes.

24 Q. And these are described as incidental parameters; is that  
25 right?

1 A. That's correct.

2 Q. Do you agree with that description?

3 A. I think it's a fine adjective.

4 Q. Well, the weights that are immediately under that  
5 description, these are used to calculate what you called  
6 fitness scores for your maps; correct?

7 A. Correct.

8 Q. And these fitness scores measure how good a map is at  
9 meeting your criteria; is that right?

10 A. No, I wouldn't agree with that characterization.

11 Q. Well, you recall being deposed in this case; correct?

12 A. I do.

13 Q. Do you recall saying at your deposition that these weights  
14 are used to calculate the fitness score for each map, and that  
15 the fitness scores measure how good the map is at meeting that  
16 criteria?

17 A. Well, what I recall from the deposition is we'd had a lot  
18 of talk where we were not understanding each other because we  
19 would use words that I thought were technical, and you would  
20 use them in a non-technical sense. And then I would answer  
21 something, and then you would say, "You mean this?" And I  
22 would say no.

23 This also falls in that category where, if you want, I can  
24 explain the whole fitness thing to you. I think I did that at  
25 deposition. And I can explain to you how the weights work.

1 But this part where you say it describes how good your maps  
2 were, that's such an imprecise word, how good your maps were,  
3 that, to me, it's hard to converse. We talk about technical  
4 things, but we don't have any technical background or  
5 description of what we're talking about.

6 And so when you say something like how good they were,  
7 maybe at some point I agreed to this characterization, but I  
8 feel like the way you want to convey it now is something not  
9 consistent with what I had agreed to.

10 Q. So do you believe the phrase how good the maps were or are  
11 is vague?

12 A. Yeah. It's really imprecise here.

13 Q. Well, let's take a look at your deposition testimony.

14 Dr. Cho, at your deposition there was a court reporter  
15 there. Do you recall that?

16 A. Yeah. Do I have a copy?

17 Q. I'm going to hand you one in a minute.

18 A. Oh, sorry.

19 Q. I just want to lay the foundation that there was a court  
20 reporter present at your deposition?

21 A. Yes.

22 Q. And you were sworn under oath to tell the truth?

23 A. Yes.

24 Q. And you did tell the truth at that deposition?

25 A. Yes.

1 Q. And the court reporter took down all the questions and  
2 answers from that deposition; correct?

3 A. Yes.

4 Q. You had a chance to review your transcript?

5 A. Yes.

6 MR. TUCKER: May I approach the witness, Your Honors?

7 JUDGE BLACK: Yes.

8 Q. I'd like to refer you to page 196 of your deposition  
9 transcript.

10 MR. TUCKER: And if we could pull that up, please.

11 Thank you.

12 Q. On line three you state: "So these refer to these weights.  
13 See 'weight fit pop, weight fit compact'?"

14 "Question: I see that."

15 "So --"

16 "Question: So what does fitness mean?"

17 And your answer: "Fitness means how -- how good is this  
18 map."

19 Did I read your testimony from your deposition correctly?

20 A. Same thing I'm doing now, I'm gesturing "good," because  
21 that has no meaning to me.

22 Q. But those are your words; correct?

23 A. Yeah, but I have little quotes going on or something like  
24 this (gesturing) going on there, which the court reporter  
25 picked up.

1 Q. Well, each of your criteria that are listed -- if we can go  
2 back to Exhibit I5. Each of the criteria that are listed get a  
3 weight; correct?

4 A. Correct.

5 Q. Equal population got a weight of .6.

6 A. Correct.

7 Q. And you recall testifying in your deposition that these  
8 fitness scores help guide the movement of your Markhov chain?

9 A. Correct.

10 Q. So they aren't just really incidental parameters, are they?

11 A. They are.

12 Q. Well, they're helping to guide the movement of your Markhov  
13 chain; right?

14 A. So if you keep going in the deposition, which I don't know  
15 if this is where you're going now, but I explain it further.

16 Right? So on the next page, the page after that, the page  
17 after that, I'm explaining to you how that works in the  
18 algorithm. So, for instance, I say, "It's embedded in what we  
19 call the Metropolis-Hastings criteria that determines  
20 acceptance or not."

21 And then you said on page 199, "I hate to ask, but what is  
22 the Metropolis-Hastings criteria?"

23 And then I describe that to you.

24 And you continue to ask me about that, and you're basically  
25 saying: "So you only pick the good maps?"

1 And I say, "No, that's incorrect. It doesn't do that.  
2 That's not the purpose of Metropolis-Hastings criteria."

3 It does have an effect, but the Metropolis-Hastings  
4 criteria goes back to the whole idea of how Metropolis -- how a  
5 Markhov chain Monte Carlo algorithm works. You have this --  
6 it's a Metropolis-Hastings Markhov chain Monte Carlo. There's  
7 lots of ways to have an MCMC. My MCMC is a Metropolis-Hastings  
8 MCMC.

9 And so you have to have this kind of criteria. And it does  
10 not pick just good maps. You have to have some measure of  
11 goodness, which is not what you're referring to. Because this  
12 is, again, this -- our conflict, which is I'm trying to talk in  
13 a technical sense with the technical definition, and then you  
14 ask me things like, does this mean good. And it doesn't.

15 Q. Dr. Cho, again, we are in a timed trial. Your counsel will  
16 have an opportunity to, on redirect, ask you further to clarify  
17 this point. And my question was not that anyway.

18 My question was merely don't the fitness scores guide your  
19 Markhov chain?

20 A. Yes.

21 Q. And they guide your algorithm; correct?

22 A. I wouldn't say they guide the algorithm, no.

23 Q. Well, they guide your Markhov chain on to which parts of  
24 the total space of possible maps that it's going to search;  
25 correct?



1 A. Correct. And that's theoretically grounded, that the way  
2 it works it produces a representative sample. You're trying to  
3 say the way it works it's not representative. That's just  
4 simply false.

5 Q. And, Dr. Cho, if you had used different weights, you would,  
6 again, generate a different set of maps; correct?

7 A. Every time I run the algorithm it actually generates  
8 different maps. That has nothing to do with anything.

9 Q. Well, that would be particularly true if you used different  
10 weights, wouldn't it?

11 A. No, that would not be true, because the algorithm produces  
12 a representative sample. So if the sample is different, it can  
13 still be a representative sample. This has nothing to do with  
14 those weights.

15 Q. But if you had a different -- strike that.

16 If you had different weights, you'd end up with a different  
17 sample; right?

18 A. If I ran it again with the exact same weights I would have  
19 a different sample. That has nothing to do with what we're  
20 talking about here.

21 Q. Well, Dr. Cho, that's not my question. My question is, if  
22 you use different weights, you would end up with a different  
23 sample? Yes or no.

24 A. The weights have nothing to do with it. That's why they're  
25 incidental.

1 Q. Dr. Cho, I'll ask it one more time. If you ran the  
2 algorithm with different weights, you would end up with a  
3 different sample? Yes or no.

4 A. I would say that that is true in the sense that if I did  
5 anything, anything at all, it would turn out with a different  
6 sample. Nonetheless, they would be representative.

7 Q. All right. Dr. Cho, let's take a look at a few brief parts  
8 of your code. And due to the order that's been entered by the  
9 Court in this case, I'm going to hand you a hard copy so you  
10 can review it but I'm not going to provide hard copies to the  
11 Court or the rest of the parties, but we will display only  
12 small portions of your code on the screen. Okay?

13 A. Okay.

14 MR. TUCKER: May I approach, Your Honors?

15 JUDGE BLACK: Yes. Thank you.

16 Q. Dr. Cho, I've handed you what's been marked as Plaintiffs'  
17 Exhibit 89.

18 JUDGE BLACK: Excuse me. I'm sorry. Was there some  
19 part of the order that precluded the fact-finders from seeing  
20 the code?

21 MR. TUCKER: I'm happy to display the --

22 JUDGE BLACK: No, you can't display more than whatever  
23 we defined in the order. It's difficult for us to follow if  
24 you're not going to give us a copy of the paper code.

25 MR. TUCKER: Your Honors, I would be happy to, during

1 the break, try to get copies. We may actually have more  
2 copies. Can I have one minute, Your Honor?

3 JUDGE BLACK: Yes.

4 MR. TUCKER: We, in fact, do have three copies, Your  
5 Honor. May I approach?

6 JUDGE BLACK: Perfect. Yes. I'm not going to steal  
7 the code.

8 MR. TUCKER: Now, the only problem, I'll represent to  
9 the Court, is these pages aren't numbered. So it might be a  
10 little bit difficult, but I will try my best to refer the Court  
11 to wherever we are looking in the code.

12 JUDGE NELSON MOORE: They look that like they're  
13 numbered.

14 JUDGE BLACK: What are these things in the right  
15 margin?

16 MR. TUCKER: May I approach, Your Honor?

17 JUDGE BLACK: Yes.

18 (Mr. Tucker knocks nameplate over.)

19 (Laughter.)

20 MR. TUCKER: Can we put that on record?

21 This, I believe, is Plaintiffs' Exhibit --

22 JUDGE NELSON MOORE: No. But there's a .49 .50, and  
23 it starts with .1, .2.

24 MR. TUCKER: I believe that's trying to paginate the  
25 code.

1 JUDGE BLACK: Right.

2 MR. TUCKER: I had not realized our office had done  
3 that. So, yes, I will be able to refer you.

4 JUDGE BLACK: Will you thank the person that did that?

5 MR. TUCKER: I will very much thank him.

6 JUDGE BLACK: Very well.

7 Q. Dr. Cho, I want to refer you to page 64 of your code.

8 A. I -- I don't have pages.

9 Q. Yeah. Unfortunately, I know that might be a problem, and  
10 I'm going to try to pull up --

11 JUDGE BLACK: Can we swap it out?

12 MR. TUCKER: Sure.

13 (Mr. Tucker retrieves the document from the Court and hands  
14 it to the witness.)

15 THE WITNESS: This is -- oh, so this is -- this is  
16 half of this?

17 MR. TUCKER: Yeah, we tried to simplify it.

18 THE WITNESS: I actually can't see this.

19 MR. TUCKER: Well, we're going to pull up specific  
20 parts of the code.

21 THE WITNESS: I mean, the font is really tiny.

22 JUDGE BLACK: Judge Moore has offered to share her  
23 copy with me.

24 JUDGE NELSON MOORE: Yes, but it is minuscule.

25 JUDGE BLACK: It's minuscule.

1 MR. TUCKER: Your Honor, for the record, this is why  
2 we took issue with the code being under seal, but we are  
3 going --

4 THE WITNESS: This is twice as tiny as I supplied it  
5 to you.

6 MR. TUCKER: We are going to do the best we can to  
7 show Dr. Cho the only parts of the code in compliance with the  
8 Court's order.

9 JUDGE WATSON: Do you have a magnifying glass?

10 MR. TUCKER: I do not. But we are going to blow up  
11 the parts of the code. We're only going to be brief with the  
12 code, I promise.

13 JUDGE BLACK: Very well.

14 MR. TUCKER: We just want to look at a couple of  
15 things.

16 JUDGE WATSON: Brief with the code. Good thing. Go  
17 ahead.

18 Q. So, Dr. Cho, I'm looking at page 64 of your code, and we've  
19 culled out -- again, we're only allowed to show a small portion  
20 of your code.

21 A. I see it.

22 Q. But do you see, at the bottom here, there are various  
23 weight fitness scores; is that correct?

24 A. I see it, yes.

25 Q. Okay. And the first one for city break says .5; is that

1 correct?

2 A. That's correct.

3 Q. Okay. But in the letter we received from plaintiffs'  
4 counsel, you indicated that the weights for city breaks was  
5 .05; is that true?

6 A. Yeah, it might be. I'd have to look back, but I'll take  
7 your word for it for now.

8 Q. So when you were executing your code at the command line,  
9 did you change these parameters?

10 A. I don't change these parameters. In the code there's a  
11 default number, and you can change or enter the parameter at  
12 the command line. So, you know, for instance, if I wanted to  
13 run it for another state or I wanted to do them different, I  
14 would do that at the command line. Otherwise, it goes to  
15 default value.

16 Q. Now, somebody just reviewing your code wouldn't then have  
17 known what you input at the command line at the time you ran  
18 your code, would they?

19 A. But we told you.

20 Q. But outside of the letter that we received after we  
21 inquired in this case, nobody reviewing your report or your  
22 code would have been aware of that, would they?

23 A. That's true.

24 Q. And do you know how many other parameters that you input at  
25 the command line that are different than what's in your code?

1 A. It should be in the letter.

2 Q. Those are the only ones?

3 A. Yes.

4 Q. You're sure of that?

5 A. Pretty sure.

6 Q. Okay. Now at the bottom here, there's one that says:

7 Float weight, underscore, fit, underscore, incum equals 0.2; is  
8 that correct?

9 A. I see it, yes.

10 Q. Is this a weight for a parameter for incumbency protection?

11 A. Yes and no. Yes in the sense that that's what it would be.  
12 No in the sense that I never implemented anything with that.

13 Q. Okay. So you could factor in incumbency protection into  
14 your code; correct?

15 A. Actually, I have no code for that. I've thought about it.  
16 I haven't done it.

17 Q. And I believe you testified that the code you produced in  
18 this case contains different parts of your PEAR algorithm, too;  
19 correct?

20 A. Correct.

21 Q. But you didn't describe in your report what parts of the  
22 PEAR algorithm are incorporated into your code, did you?

23 A. I do not specify in my report exactly which parts of PEAR  
24 are in the algorithm, but if you look at my publications on  
25 EMCMC, you can figure out which parts would come from PEAR.

1 They don't directly come from PEAR either. I have to modify  
2 them to work with MCMC.

3 I think we talked about this at the deposition also, that  
4 you can't just bring something in. It has to be modified. You  
5 have to think about how these things would work together. It's  
6 not nearly as simple as you're making it seem.

7 Q. I am not trying to make it simple. In fact, Dr. Cho, quite  
8 the opposite.

9 There are also parts of this code that you wrote that's  
10 contained in Exhibit P89 that you did not use in this case;  
11 correct?

12 A. That's correct.

13 Q. But you didn't disclose in your report the parts of the  
14 code that you didn't use, did you?

15 A. It should be clear from the code which parts are used and  
16 which parts aren't used. It's true that I didn't go through  
17 and kind of cull it for you, because this is not code, as I  
18 explained yesterday, purely for redistricting. There's a lot  
19 of stuff in here that I've developed over the years for  
20 different things that you can use for redistricting or not.  
21 And so I pulled those things together.

22 I could go through and, you know, delete things, but it's  
23 not necessary for me to delete things. What I gave you was  
24 everything and more. And I guess you're complaining about the  
25 "more," because it's not clear to you which part was the more



1 and which part was the not. But if you look at the algorithm  
2 or if you read the code -- and I'm completely with you on this,  
3 it's really hard to read. It's even hard for me to read. If I  
4 don't look at my code, like, every day, I forget what things  
5 are, because it's code.

6 Q. And I think you testified in your deposition that, in fact,  
7 this is not how you would look at your code, is it?

8 A. That's correct.

9 Q. I want to pull up one more part of the code, page 54.

10 A. But it's all of it.

11 Q. On page 4 there's a part of your code that reads "int n  
12 equals 0, int k equals 8." Do you see that?

13 A. I do.

14 Q. What does this represent?

15 A. I can't tell from what I'm looking at, and I don't know  
16 where in the code we are, so I can't tell you.

17 Q. We have a hard copy of the code in front of you. Would  
18 that help if you look at it?

19 A. I know, but I don't know where it is.

20 Q. So sitting here in the courtroom today, and just based on  
21 this, you can't tell us what these lines of code --

22 A. Well, if you give me a little time and I can find it, then  
23 I can tell you exactly what it is. But looking at this thing  
24 that you put up, I have no idea.

25 Q. Well, take a minute or two, Dr. Cho.

1 A. Do you think you can point it out to me?

2 Q. I can try. I can tell you it's on page 54. So it's about  
3 halfway through the stack. And on your other one, the pages  
4 are numbered.

5 A. But that one, the font is too small. I can't see anything.

6 Q. Dr. Cho, let me try and ask you this way. Does the "k  
7 equals eight," does that represent the number of congressional  
8 districts that are to be created?

9 A. No. We would input that on the command line. Or we --  
10 yeah. No. And, I'm sorry. I'm getting kind of old, and I  
11 really can't see what's going on on this. It's way too small.  
12 But I assure you we had 16 districts, because we output -- we  
13 had output for 16 districts.

14 Q. But is it possible that this is another one of the  
15 parameters that was changed at the command line?

16 A. You know, if you look at the -- here. It says number of  
17 districts: Sixteen. It's under incidental. Maybe you think  
18 that's not incidental, because if I made it eight I'd get  
19 different output. This is true. So maybe you wouldn't call  
20 that incidental.

21 I think of it as a really minor thing that we told the  
22 algorithm there are going to be 16 districts. And I'm not sure  
23 why we would point to something like this. Because, you know,  
24 when you code, you create a variable, you always give it a  
25 default value. That's just standard coding. So I'm not sure

1 what we're talking about here that I changed something, I  
2 actually made it 16 districts instead of eight. I don't know  
3 what we're talking about here.

4 MR. TUCKER: Your Honor, I know we're coming up on  
5 10:30, about the mid-morning break, and I'm at a good stopping  
6 point if that's good for the Court.

7 JUDGE BLACK: I didn't hear all of that. I heard it's  
8 10:30.

9 (Laughter.)

10 JUDGE BLACK: How are you coming?

11 MR. TUCKER: I still have a little ways to go.

12 JUDGE BLACK: All right. We'll take a break. And  
13 maybe you can pursue what you're trying to pursue and get it  
14 figured out during the break.

15 MR. TUCKER: I will review, and we may either clean  
16 this up or we'll move on.

17 JUDGE BLACK: Very well.

18 MR. TUCKER: Thank you, Your Honor.

19 JUDGE BLACK: We're going to break for 15 minutes till  
20 quarter of 11:00.

21 Doctor, please do not discuss your testimony during the  
22 break.

23 THE WITNESS: Okay.

24 JUDGE BLACK: All right.

25 COURTROOM DEPUTY: All rise. This court is in recess.

1 (Witness temporarily excused.)

2 (Recess taken: 10:31 AM - 10:48 AM.)

3 (Wendy Tam Cho resumes the witness stand.)

4 JUDGE BLACK: You may be seated. Thank you.

5 Dr. Cho (handing magnifiers).

6 THE WITNESS: Thank you.

7 JUDGE BLACK: The ones that you choose not to use  
8 would you give back to us?

9 THE WITNESS: Okay. Thanks.

10 JUDGE BLACK: The Court has found some magnifying  
11 instruments and handed them to the witness. Perhaps they're  
12 not necessary.

13 Are you prepared to continue your cross?

14 MR. TUCKER: Yes, Your Honor.

15 JUDGE BLACK: If you'd be willing to approach.

16 MR. TUCKER: Your Honor, I very much appreciate your  
17 providing the magnifying glass to the witness, although I think  
18 we are going to move on from the code, at least for now.

19 JUDGE BLACK: You don't need the magnifying glasses?

20 (Laughter.)

21 JUDGE NELSON MOORE: You went to all that trouble.

22 MR. TUCKER: Not now. Maybe in a little bit.

23 JUDGE WATSON: Judge Barrett will be very upset.

24 JUDGE BLACK: Well --

25 Q. Dr. Cho, are you ready?

1 A. I'm ready.

2 Q. Now, you restricted the runtime of your algorithm on the  
3 supercomputer to four hours; is that right?

4 A. Yes.

5 Q. You could have let it run longer?

6 A. Yes.

7 Q. And those four algorithm -- or strike that.

8 In those four hours, is it correct that your algorithm  
9 generated billions of potential maps?

10 A. Correct.

11 Q. And, again, with potential or feasible maps being those  
12 that met your criteria; correct?

13 A. Correct.

14 Q. Now, although your algorithm generated billions of maps in  
15 that four-hour period, you only reported on a sample of about 3  
16 million; correct?

17 A. Correct.

18 Q. So I think, as you and I agreed at your deposition, what we  
19 have, really, here is a sample of the sample; is that right?

20 A. That's correct.

21 Q. Do you know how many feasible maps your algorithm could  
22 have produced if you ran the code for 48 hours?

23 A. It would be a lot more.

24 Q. So you don't know how many feasible maps, again, with  
25 feasibility being meeting your criteria, you don't know how

1 many feasible maps could be created for the state of Ohio, do  
2 you?

3 A. I don't know the exact number, no.

4 Q. Let alone how many potential maps there are for the state  
5 of Ohio that the legislature could legally adopt?

6 A. I don't know the number, no. What I created was a sample  
7 of that set.

8 Q. And you don't provide any analysis for how accurately your  
9 3 million maps uniformly sample the possible districtings of  
10 the state of Ohio, do you?

11 A. I don't provide that in my report, though in my  
12 publications I present that type of information.

13 Q. And we'll get that in a little bit, thank you, Dr. Cho.

14 Moreover, would you agree that the purpose of a simulation  
15 is ultimately to generate maps that a human might draw? Is  
16 that right?

17 A. Yeah, in the sense that they're legally viable and in the  
18 sense that I've described already.

19 Q. Now, we understand that you did not generate any pictorial  
20 maps from your simulation that we could look at; is that right?

21 A. That's correct.

22 Q. So we don't know what these maps actually look like?

23 A. That would be correct, yes.

24 Q. And you also did not produce any shapefiles so we could  
25 load them into a software to take a look at any of these maps;

1 is that right?

2 A. Also correct.

3 Q. Now, we know that your simulation drew 16 congressional  
4 districts within the boundaries of Ohio, we just don't know  
5 where within Ohio those 16 districts are; correct?

6 A. Yeah. You don't have a picture.

7 Q. And we cannot know the geography of Ohio covered by each of  
8 these 16 districts in each of your 3 million simulated maps;  
9 correct?

10 A. I don't know how that's different than the last question  
11 you asked.

12 Q. So the same answer?

13 A. I guess. If we don't know the geography -- I mean, I know  
14 the geography of Ohio. I guess it's an imprecise question to  
15 me, so I'm -- and I'm not sure why you asked it again and  
16 changed the word is what I'm trying to get at.

17 Q. Well, we can know a few things about your maps; right? We  
18 know that your code created maps with at least one district  
19 with a black voting age population which, for short, BVAP, of  
20 at least 45 percent; correct?

21 A. Correct.

22 Q. And can we agree for purposes of these questions to refer  
23 to that district in each map as the VRA district?

24 A. Sure.

25 Q. And we know that in the maps your simulation created, the

1 sample you provided us, no map included a VRA district with a  
2 BVAP as high as 48 percent; correct?

3 A. Correct.

4 Q. Now, understanding that Congressional District 11 in the  
5 enacted plan has a BVAP of over 50 percent, we could assume  
6 that none of the VRA districts in your 3 million maps is  
7 identical to Congressional District 11; correct?

8 A. Correct.

9 Q. Now, yesterday you testified that you checked to confirm  
10 that the VRA district in each of your maps was drawn within the  
11 Cleveland area. Do you recall that?

12 A. Yes.

13 Q. But you have not produced any of those maps for us to be  
14 able to confirm that the VRA district was always in the  
15 Cleveland area; right?

16 A. Yes. You can't confirm that, yes.

17 Q. How many did you check?

18 A. How many what did I check?

19 Q. How many of your maps did you check to see that the VRA  
20 district was in the Cleveland area?

21 A. When I developed the algorithm, all you have to do is check  
22 to see what county it's in.

23 Q. Did you print out any maps to see if it was in Cuyahoga  
24 County?

25 A. No, but you can print that. You don't have to do a map.



1 You can just say, when you find this district, what county is  
2 it in?

3 Q. And at your deposition, even after we took a break to  
4 locate where that check is in your algorithm, you could not  
5 find it at that time in your code, could you?

6 A. It's true at my deposition I didn't find it, yes.

7 Q. Would you be able to take a look at a copy of your code now  
8 and find where it ensures that the VRA district is in the  
9 Cleveland area?

10 A. I've subsequently looked through the code for this exact  
11 purpose, and I know we had it in the code because we had  
12 printed it out and checked. It is no longer in the code, and  
13 it's not in the code that I provided to you, because after I  
14 ran it and, you know, you produce millions of these maps and it  
15 never appears anywhere else, I decided it had to be there. So  
16 I took it out because it's part of code cleaning, as it were,  
17 that if a line of code is not doing anything, I delete it.

18 And also, you know, as I've explained the code, this code,  
19 to me, is -- I want it to be kind of a general purpose piece of  
20 code. So when I have lines like that in there that I'm not  
21 going to ever use again, I delete them.

22 Q. So I want to make sure I'm clear on this, Dr. Cho. So you  
23 deleted a portion of your code that you used to run your  
24 algorithm for this case?

25 A. No. When I ran it for this case, it wasn't -- when I ran

1 the simulation for this case with this code, that line wasn't  
2 in there. When I developed the code and I was testing that  
3 piece of it, that line was in there.

4 Q. Okay. I'm glad I clarified then.

5 So at the time you ran the code in this case you did not  
6 include the code that ensured that the VRA district was in the  
7 Cleveland area?

8 A. It doesn't ensure it. It checks.

9 Q. So you weren't able to check for purposes of this case,  
10 were you?

11 A. No. I've checked it a lot and I've produced millions and  
12 millions of maps before I produced this one because there's a  
13 whole development process. It's not like I somehow came upon  
14 this code and then I ran it for the first time and I never  
15 checked. I checked a lot.

16 I mean, when you develop code, it takes a long, long time.  
17 And you have lots of lines in there that are no longer in there  
18 now because I'm debugging, I'm checking things, I run  
19 something, I print out stuff, I check it. And once I'm assured  
20 or once I'm sure that something works, I no longer print all  
21 this, like, extra stuff because it's too much stuff. It's  
22 unnecessary.

23 Q. But Dr. Cho, you did not have that as part of your code in  
24 this case to check to make sure that the VRA district was in  
25 the Cleveland area, did you?

1 A. I did not have that line, but I'm sure that district is in  
2 that area, the Cleveland area.

3 Q. But nobody reading your code can be sure of that, could  
4 they?

5 A. No.

6 Q. Understanding that we can't confirm that, let's assume for  
7 the sake of the following questions that your algorithm did  
8 ensure that the VRA district was drawn within the Cleveland  
9 area.

10 MR. TUCKER: And let's put up a map of that area. Can  
11 you please put up Plaintiffs' Demonstrative 20. And if we  
12 could zoom in on the Cleveland area.

13 Q. Dr. Cho, do you recognize this as a map of Congressional  
14 District 11 under the 2011 Ohio plan?

15 A. I don't know the exact shape, but it's up there, and I'll  
16 take your word for it.

17 Q. And just to be clear, we're talking about Congressional  
18 District 11 is drawn with a north-south orientation in light  
19 blue, and Cuyahoga County is more of an east-west orientation  
20 to the north part of the map. Do you see that?

21 A. Yes.

22 Q. And my colleague is going to draw a line reflecting the  
23 boundaries of Cuyahoga County to make that a little more clear.  
24 It's a dotted line that's a little hard to see in the  
25 demonstrative.

1 Now, as he's drawing that, you see that there are parts of  
2 Congressional District 11 that are contained within Cuyahoga  
3 County; correct?

4 A. Yes.

5 Q. And there are parts of Cuyahoga County that are not in  
6 Congressional District 11; right?

7 A. That's correct.

8 Q. Do you know how many voters in Cuyahoga County are in  
9 Congressional District 11?

10 A. I don't know the exact number, no.

11 Q. Do you have an approximate?

12 A. No.

13 Q. Do you know how many voters in Cuyahoga County are in  
14 Congressional District 11?

15 A. I couldn't give you a number on that, no.

16 Q. And so you cannot know the percentage of voters in common  
17 between Cuyahoga County and Congressional District 11; correct?

18 A. Correct. I mean, I could find out, but I don't know  
19 sitting here, no.

20 Q. And you obviously cannot know the percentage of voters in  
21 common between any one of your VRA districts in your simulated  
22 maps and Congressional District 11; right?

23 A. Say that again.

24 Q. You cannot know the percentage of voters in common between  
25 any one of the VRA districts in your simulated maps and

1 Congressional District 11; right?

2 A. Well, I could know that, but I don't know it.

3 Q. Now, Dr. Cho, we've already talked about that your use of  
4 the 45 percent BVAP number came from counsel and, specifically,  
5 one of plaintiffs' other experts in this case; correct?

6 A. Correct.

7 Q. In the context of the Voting Rights Act, do you know what a  
8 district-specific functional analysis is?

9 A. I think so, but I'm not -- I don't know what you're  
10 referring to. So if you want to clarify, I can --

11 Q. Sure. Well, Dr. Handley testified earlier in this case  
12 that that is a term used by her, her co-authors, courts and the  
13 Department of Justice when referring to the Voting Rights Act.  
14 Are you aware of that?

15 A. I am now.

16 Q. Have you reviewed Dr. Handley's testimony that she gave in  
17 this case?

18 A. I have not.

19 Q. Do you know that conducting a district-specific functional  
20 analysis is how Dr. Handley identified her 45 percent BVAP  
21 number?

22 A. I'm still not positive what you're referring to, but you're  
23 referring to her analysis and I haven't seen it, so I guess  
24 I'll say no.

25 Q. Now, I'll represent to you that Dr. Handley was very clear

1 in her testimony to this Court that when drawing a Voting  
2 Rights Act district, a map drawer must conduct a district-  
3 specific functional analysis. Would you disagree with that?

4 A. I still don't know what she did, so I guess I can't really  
5 agree or disagree, but I'm sure you're going to be more  
6 specific soon.

7 Q. Are you aware that Dr. Handley performed a  
8 district-specific functional analysis for Congressional  
9 District 11 in this case?

10 A. I'm not sure how this differs from the last couple of  
11 questions, because I still don't know what it is because I  
12 haven't read the report, so I'll say no.

13 MR. TUCKER: Well, let's take a quick look at her  
14 report.

15 Will you please pull up Plaintiffs' Exhibit 254.

16 Q. And immediately under the introduction it states: "My  
17 analysis of participation rates and voting patterns in the 11th  
18 Congressional District of Ohio has led me to conclude that a  
19 district with a 45 percent black voting age population would be  
20 an effective minority district."

21 Do you see that?

22 A. I do.

23 Q. Now, you did not conduct any district-specific functional  
24 analysis in this case for any of your VRA districts in any of  
25 your simulated maps; correct?

1 A. Correct. I only required them to be above 45 percent BVAP.

2 Q. And, in fact, that would have been impossible for you to  
3 do, because we don't even know what your VRA districts look  
4 like, do we?

5 A. So if you're asking me do we have to know what they look  
6 like for some other reason that involves this district-specific  
7 functional analysis, then I would say yes.

8 Q. We don't know what particular towns and cities are  
9 contained within each of your VRA districts in each of your 3  
10 million simulated maps, do we?

11 A. We don't, but we have actually quite a good idea.

12 MR. TUCKER: Well, let's pull back up Plaintiffs'  
13 Demonstrative 20. And if we can zoom in again on the Cuyahoga  
14 County area.

15 Q. And, again, you just used a single 45 percent BVAP target  
16 number for all of your VRA districts and all of your 3 million  
17 simulated maps; correct?

18 A. Correct.

19 Q. But in zooming in here, we don't know, for example, whether  
20 Lakewood would be within your VRA district, do we?

21 A. We do not know.

22 Q. We don't know whether Brooklyn would be in your VRA  
23 district, do we?

24 A. So we don't know for sure which ones are in there, but I  
25 did look at this particular area, and I looked at where the

1 BVAP was. This was just my own interest. And you pretty much  
2 have to take all the areas where you have any significant  
3 African-American population to even get this thing up to 45  
4 percent. So we pretty much know what's included, because you  
5 pretty much have to take all of it.

6 Q. But you didn't actually look at any of your maps to see  
7 which of these towns and cities were included, did you?

8 A. I did not. But I'm explaining to you, I looked at it. You  
9 pretty much have to take all of them.

10 And so if you're saying, Did you exclude this area of, you  
11 know, the Cleveland area that has lots of African-Americans, I  
12 would say no, because you pretty much can't exclude any of  
13 them.

14 Q. But you don't know that as a fact, do you, Dr. Cho?

15 A. I pretty much know it as fact, actually, yes, because I  
16 just explained to you, you pretty much have to take all of  
17 them.

18 Q. Well, do you know that each one of your 3 million maps with  
19 the VRA district includes Parma?

20 A. It's possible I could have excluded a little bit of it, but  
21 to get up to 45 percent, as I explained to you, you pretty much  
22 have to have all of them.

23 Q. What about on the east side? You don't know whether or not  
24 your maps include Mayfield Heights?

25 A. The same answer.



1 Q. And going up to the very top portion, you don't know  
2 whether or not your maps, likewise, include the City of Euclid?

3 A. The same answer.

4 Q. And are you aware that the city of Euclid was under a  
5 court-mandated level of 60 percent BVAP for certain electoral  
6 districts?

7 A. I was not.

8 Q. And you did not conduct any district-specific functional  
9 analysis on Cuyahoga County, generally, either, did you?

10 A. I did not.

11 Q. So your analysis applied a single universal target BVAP of  
12 45 percent for all 3 million maps, regardless of the particular  
13 geography that was included within the VRA district in each of  
14 those maps; right?

15 A. This is true. But as I explained to you, this wasn't part  
16 of the simulation, but I did look at this district and I did  
17 look at the BVAP distribution in this area. And, as I  
18 explained to you, you pretty much have to have all of them.  
19 And so maybe there's a sliver here or a sliver there that's not  
20 included. So I don't know if that happened or not, but  
21 significant parts of the African-American population in this  
22 area, they were all included.

23 Q. Do you know if any of the maps in your simulation for this  
24 VR -- strike that. Let me ask a better question.

25 Do you know if any of the VRA districts in any of your 3

1 million simulated maps went down into Summit County?

2 A. I don't, but I would highly doubt it.

3 Q. And so if you believe they were mostly contained within  
4 Cuyahoga County, again, you didn't do any district-specific  
5 functional analysis for Cuyahoga County, did you?

6 A. I did not.

7 Q. And you didn't send any of your 3 million maps to  
8 plaintiffs' counsel or to Dr. Handley to conduct such analysis,  
9 did you?

10 A. I did not.

11 Q. And aside from this particular district, Dr. Cho, you don't  
12 know in any of your maps which counties are split or how  
13 they're split; correct?

14 A. I do know that -- so there's 23 that are split in, you  
15 know, two at least, some of them are split in three and some of  
16 them are split in four, and that was part of the output. So I  
17 never split them in three more often than the current map or in  
18 four more often than the current map.

19 Q. But you don't know which counties are split?

20 A. Well, Franklin County has to be split. Hamilton County has  
21 to be split. Cuyahoga County has to be -- you know. The  
22 things that are too big -- there are certain cities that have  
23 to be split. Columbus -- you know, they don't fit in one  
24 congressional district. So I know something, yes.

25 Q. But your maps split more than the minimum number of cities

1 and counties; correct?

2 A. Yeah. At most, 23.

3 Q. And you don't know -- of the ones that aren't mandatory,  
4 you don't know which counties or cities are split, do you?

5 A. Correct.

6 Q. Dr. Cho, do you agree that when one creates an algorithm  
7 that produces outcomes upon which we make decisions that the  
8 details of that algorithm are material?

9 A. Yes.

10 Q. And you agree that if an algorithm is going to be used to  
11 evaluate the constitutionality of a congressional districting  
12 plan, it should be sufficiently scrutinized by the scientific  
13 community to allow others, including the courts, to have  
14 confidence in the process and the results?

15 A. So the courts have allowed all sorts of things. I wouldn't  
16 venture to speak for the courts. They don't always require, I  
17 don't know, whatever level that you're referring to as  
18 scientifically valid. It is my own opinion that I value  
19 something that is peer reviewed versus something that's not  
20 peer reviewed, if that's your question.

21 Q. You don't fully agree with that statement, then?

22 A. I just think there are a lot of different things that we  
23 could consider here. So if you're more specific and you want  
24 to say something specific, I can tell you.

25 Q. Do you agree that transparency is warranted to the entire

1 scientific and legal community?

2 A. So, again, I don't know what you mean by transparency. You  
3 had all of my code, which I don't share with other people. I  
4 think that's above and beyond the level of transparency that I  
5 think is required. Because, in my publications, I talk  
6 specifically about what I do, how I do it, why it's valid.  
7 That's been reviewed by the scientific community.

8 Q. Well, Dr. Cho, let's, again, look at your words. And I  
9 refer you to your Pennsylvania report again. Particularly, I  
10 want to refer you to page 18.

11 MR. TUCKER: And if you could pull up Footnote 4,  
12 please.

13 Q. Are you there?

14 A. Yes.

15 Q. Dr. Cho, in Footnote 4 you wrote:

16 "After his report was served in this case, Chen offered to  
17 make his code and maps available on a confidential basis to be  
18 used only in this case. However, the short amount of time that  
19 I would have been allowed to view the code would not have been  
20 sufficient for me to explore or vet it properly. Further,  
21 indeed, the point is not whether I would have been allowed some  
22 short amount of time to view the code, but whether the  
23 algorithm has been sufficiently scrutinized by the scientific  
24 community to allow others, including the Courts, to have  
25 confidence in the process and the results. Transparency is

1 warranted, not simply to me in a short amount of time for one  
2 Court case, but to the entire scientific and legal community.  
3 It should be subject to peer review and accepted in the  
4 scholarly community."

5 Those are your words in your report; correct?

6 A. I absolutely agree with them. And an algorithm is not  
7 code.

8 Q. Well, Dr. Cho, you referenced your PEAR algorithm a few  
9 times during your direct testimony and even on  
10 cross-examination today. Do you recall that?

11 A. Yes.

12 Q. And you wrote a peer-reviewed paper on your PEAR algorithm;  
13 right?

14 A. Correct.

15 MR. TUCKER: I'd like to pull up Plaintiffs' Exhibit  
16 442.

17 Your Honors, may I approach?

18 JUDGE BLACK: Yes, thank you.

19 Q. Dr. Cho, is Plaintiffs' Exhibit 442 the peer-reviewed  
20 article that you wrote on your PEAR algorithm?

21 A. Yes.

22 Q. And this is not the algorithm that you employed in this  
23 case?

24 A. Correct.

25 Q. And you published pseudocode with this paper, did you not?

1 A. Correct.

2 Q. And on pages 83 to 85 of the article you describe in detail  
3 four different subalgorithms that went into this larger PEAR  
4 algorithm; is that right?

5 A. I supply pseudocode, yes.

6 Q. So, for example, it talks about Algorithm 1 relates to  
7 contiguity checking; correct?

8 A. Correct.

9 Q. And Algorithm 2 discusses how you generate a feasible  
10 contiguous solution. Do you see that?

11 A. Yes.

12 Q. And Algorithm 3 discusses this doctrine of shifting  
13 mutation?

14 A. Yes.

15 Q. Okay. Now, Dr. Cho, I want to refer you to the article  
16 that you wrote about your algorithm in this case.

17 A. Okay.

18 MR. TUCKER: I'd like to pull up Plaintiffs' Exhibit  
19 428.

20 Your Honors, may I approach?

21 JUDGE BLACK: Yes. Thank you.

22 Q. Dr. Cho, is Plaintiffs' Exhibit 428 the article that you  
23 wrote about your algorithm that you used in this case?

24 A. Yes.

25 Q. And this is the only article that you've written about this

1 particular algorithm; correct?

2 A. Correct.

3 Q. And it hasn't been published in any peer-reviewed journal,  
4 has it?

5 A. So you want to distinguish between a peer-reviewed journal  
6 and a peer-reviewed conference. I would say that's incorrect,  
7 because those are the same.

8 Q. And that conference was in November of last year; is that  
9 right?

10 A. That's correct.

11 Q. And you only disclosed the idea of your algorithm in this  
12 paper; is that true?

13 A. If you're asking me if I disclosed the code, the answer is  
14 no, I didn't disclose the code. If you're calling this the  
15 idea, then this has been disclosed here.

16 Q. Well, do you recall at your deposition stating that the  
17 purpose of this paper was to disclose the idea of your  
18 algorithm?

19 A. Well, that's the purpose of all my publications: it's to  
20 disclose an idea. That's what academia is about. It's about  
21 ideas.

22 Q. And you admit you didn't provide any code along with this  
23 paper; correct?

24 A. Nor with the PEAR one. Nor with any of my other  
25 publications.

1 Q. You provide pseudocode with the PEAR paper; correct?

2 A. Correct.

3 Q. And you didn't provide any pseudocode with this paper.

4 A. I don't think it was necessary with this paper, because  
5 this paper is about melding two different types of algorithms  
6 together, and that idea is novel in this context. And that's  
7 the idea in this paper.

8 Q. This paper doesn't provide any detailed algorithmic steps,  
9 does it?

10 A. So, for instance, the ones that are in PEAR, if you knew  
11 what was going on, as I described, you would understand that  
12 these algorithms are relevant here. And in this paper I  
13 describe how you meld these types of algorithms with Markhov  
14 chain Monte Carlo methods, which are completely different than  
15 evolutionary algorithms.

16 So in this paper I'm explaining to you how you meld these  
17 two types of algorithms that are intended to do two completely  
18 different things, but that one can help the other to achieve  
19 its goal in a more efficient and effective way.

20 Q. This paper is attempting to describe how you melded MCMC in  
21 an evolutionary algorithm?

22 A. I guess we can use that description, sure. We'll say meld.

23 Q. But you haven't published any papers about how your EMCMC  
24 algorithm can be applied specifically to the context of  
25 redistricting, have you?



1 A. No. This one says that. The example is redistricting  
2 there, is how it applies.

3 Q. Are you referring to page two?

4 A. Uh-huh.

5 Q. And how many paragraphs do you talk about how this  
6 algorithm can be applied to redistricting?

7 A. How many paragraphs?

8 Q. How many total paragraphs do you have analyzing how this  
9 algorithm can be applied to redistricting?

10 A. I don't know. I'd have to count. The point wasn't  
11 redistricting. The point was to explain this idea, and then I  
12 said it can be applied to redistricting. I have supplied a  
13 redistricting example. I showed that it worked. I don't know  
14 that counting paragraphs means anything. It's like counting  
15 words or not liking the font. The idea is there.

16 Q. And I'm trying to get an understanding of how detailed a  
17 description you give about how you can apply this algorithm to  
18 redistricting. So I'll ask my question again.

19 How many paragraphs of this paper address application of  
20 your algorithm to redistricting?

21 A. I guess we can count that by counting how many paragraphs  
22 use the word "redistricting." Do you want to count it that  
23 way?

24 Q. However you want to count it, Dr. Cho.

25 A. I see one. There might be another. I don't know if

1 there's another or not. I need to read the whole thing.

2 But to me that's not the point. Redistricting is not like  
3 a thing. Redistricting is an application of a different thing.  
4 It's an application of a graph partitioning problem. So if you  
5 read other papers and they're talking about graph partitioning,  
6 it applies to redistricting.

7 Q. Where in the paper, Dr. Cho, does it explain how your  
8 algorithm begins building a redistricting map?

9 A. That's in my other publications.

10 Q. Which publications?

11 A. So in PEAR we talk about that.

12 Q. But PEAR is a different algorithm than you ran in this  
13 case; right?

14 A. Well, PEAR has optimization. But whether you use PEAR or  
15 you use EMCMC, you have to build up the map. And, you know,  
16 look, I even have pictures in PEAR about building up the map  
17 and then modifying the map. A lot of those are just the same.

18 Q. Where in this particular paper, Dr. Cho, does it  
19 demonstrate how your algorithm continues to add different  
20 pieces of geography to build a map?

21 A. That has nothing to do with MCMC. MCMC is about sampling.  
22 That wouldn't ever be in a paper like this because that would  
23 bore somebody who's interested in MCMC, because that's a detail  
24 about something else.

25 I mean, I have lots of publications on redistricting, and

1 then -- I guess I'm not sure what you're trying to say.  
2 Because you want to say PEAR is different, and then you want to  
3 say I bring PEAR in here. And then sometimes you want to say I  
4 don't bring it in, because now if I talk about it in PEAR,  
5 that's not in here. I mean, it's a -- it's a corpus of work.  
6 Right?

7 Q. Dr. Cho, you've testified that your PEAR algorithm is  
8 different than the algorithm in this case, and this is the  
9 paper you wrote about the algorithm employed in this case;  
10 correct?

11 A. That's correct.

12 Q. Okay. Where in this paper does it explain how your  
13 algorithm would repair a map if it's not meeting the criteria  
14 that you've employed?

15 A. That is -- it has to happen. I don't know why I would  
16 describe that in here. Because if you don't already have a  
17 map, there's no MCMC that could go on.

18 Q. Your algorithm, in this case, purportedly allows you to  
19 make large jumps to traverse different parts of the space of  
20 feasible maps; correct?

21 A. That part's in here.

22 Q. And where is that reflected in here?

23 A. So second paragraph, "Performance is compromised for  
24 conceptual ease. Large moves may provide more efficient and  
25 effective space traversal leading to faster convergence of the

1 chain. However, to devise effective large movement is not  
2 straightforward. Simply large movements often result in a  
3 small Metropolis-Hastings ratio, which leads to rejected  
4 proposals and a nonfluid and ineffective Markov chain. EA and  
5 MCMC algorithms have to have the same goal."

6 That's kind of actually the point of this article.

7 Q. This paper also presents the results from implementing the  
8 idea of your algorithm on a smaller data set; is that right?

9 A. That's true, yes.

10 Q. And it's a smaller data set of only 25 geographical units?

11 A. That's true, yes.

12 Q. What's the source of this data set?

13 A. This was a data set that was created by somebody else.

14 It's a publicly available data set.

15 Q. Was it for a particular state?

16 A. I believe the 25 came from Florida.

17 Q. And you claim, on the last paragraph -- or, I'm sorry. The  
18 paragraph that begins, "Our EMCMC," on the right side on page  
19 two. The next sentence you claim, "In our small data set with  
20 known answers, there is substantial overlap between the true  
21 distribution (shown in red). and EMCMC sampled solutions (shown  
22 in blue).

23 A. Yes.

24 Q. Now, the space for potential districtings in Ohio is  
25 infinitely larger than the space for the small data set;

1 correct?

2 A. I would not agree with that characterization, infinitely.  
3 That's a technical term.

4 Q. Exponentially larger?

5 A. Also incorrect.

6 Q. How much larger is it?

7 A. A lot.

8 Q. Well, how do you define "a lot"?

9 A. You can calculate it, but I didn't calculate it. And to  
10 say "infinite" is wrong. Infinite is a specific thing. Right?  
11 And people all the time use the word "exponentially larger." I  
12 have to tell you, almost all the time that is incorrectly used.  
13 I don't do that. That's one of my pet peeves when people do  
14 things like that, so that's why I say it's wrong.

15 Q. Significantly larger; is that fair?

16 A. Sure. Significantly larger works.

17 Q. Let's look at Figure 1. And the figure on the right  
18 purports to show that using the smaller data set you're  
19 attempting to demonstrate that your algorithm is uniformly  
20 sampling the space for that smaller data set; correct?

21 A. Correct.

22 Q. But you don't provide any similar analysis when you do it  
23 on the larger data set for the sampling for the state of Ohio,  
24 do you?

25 A. Well, that's impossible. I mean, if I had that larger data

1 set I would just report that larger data set. The whole point  
2 is I produce a representative sample. If I had the entire data  
3 set for -- if I could do the whole thing for the state of Ohio,  
4 I'd just do the whole thing.

5 Here I'm showing you when I know the answer, which I don't  
6 for Ohio, I can produce a representative sample. So this is  
7 how we do it in academia. You say -- this is how you verify  
8 something. You have a problem that's hard to understand and  
9 you show that it works on something where you know the answer.  
10 And for this data set, I know the answer.

11 And on the left you can see that somebody else proposed an  
12 MCMC, and theirs doesn't work, and mine works. That's what I'm  
13 trying to show there.

14 And even for this very simple small data set, it's not like  
15 it's simple to devise an algorithm that will work. So that's  
16 what I'm showing you there.

17 Other people tried. Theirs doesn't work. I did it. In  
18 fact, mine came up with this solution in five seconds, and  
19 these people have been running theirs like a long time. It's  
20 because their algorithm doesn't work and mine does. That's  
21 what I'm trying to show you there.

22 Q. What constraints did you use to produce Figure 1?

23 A. On the drawing?

24 Q. Yes.

25 A. So this data set is the state of Florida. Right? I didn't

1 produce this data set. It's not my data set. I'm using it  
2 because other people have used it to explore how well things  
3 sample.

4 So in this data set there's, you know, 25 precincts, and  
5 the only data we have on the data set is a little bit of  
6 information. And another thing I've shown in other of my  
7 papers, which I don't know if you brought today or not, but I  
8 have other papers looking at this data set, looking at this  
9 idea, but I believe there is ten to 11, I think, possibilities  
10 to search, which is really quite a large number. It's  
11 non-trivially a large number. And when you impose constraints  
12 in those other papers, I give you the numbers. When you impose  
13 contiguity, it reduces to this number of possibilities. When  
14 you impose population constraints, it reduces even further. I  
15 give you the actual numbers.

16 I've looked at this data set extensively, and, you know,  
17 it's not -- it's not a huge data set, but it's not non-trivial,  
18 which is why other people can't do it.

19 Q. Now, are you --

20 A. So I produce -- nobody has produced a good sample of this  
21 except me. I'm the only one. This is the only algorithm that  
22 is able to do it.

23 Q. Well, you aren't aware of anyone who's attempted to run  
24 your code because you haven't produced it to anybody else, have  
25 you?

1 A. That's true. It's my code.

2 Q. And you haven't even produced pseudocode?

3 A. That's not true. Because in PEAR, that pseudocode is in  
4 this code. I mean, if you look at that pseudocode and you look  
5 at the actual code I gave you, that's the pseudocode for that  
6 code.

7 Q. Dr. Cho, we're not talking about your PEAR algorithm.

8 That's not the one you ran in this case. You haven't produced  
9 any pseudocode to any of your peers for the algorithm that you  
10 ran in this case, have you?

11 A. You know, nobody provides code to other people. That's not  
12 how it works. You write code. It's your code. You explain  
13 the idea to other people. And, quite frankly, if you  
14 understood MCMC and evolutionary algorithms and you took what I  
15 described here, you could write code to do what I did. I mean,  
16 I don't have to give you my code. I've told you how to do it,  
17 and that is the goal of academia is we share knowledge. I  
18 thought of something, I discovered something, I have an  
19 innovation, I'm going to explain that to you. And if I don't  
20 explain that well when it goes to the peer-review process, they  
21 say, "I don't know what you're doing. I don't think that  
22 works."

23 But my thing, I disclose what I'm doing, it goes through  
24 the peer-review process, and the other people who are peer  
25 reviewing say, "Hey, that's a good idea. That works. We would



1 like to publish that."

2 That's how it works. I don't have to give them the code.  
3 Because now if they understand what we're doing -- and people  
4 who peer review understand the field in which you -- they're  
5 peer reviewing, they're actually happy because -- I would be  
6 thrilled if someone told me how to do it and kind of laid out  
7 the steps in this way. I don't need their code. I know how to  
8 code.

9 Q. Well, Dr. Cho, you actually analyzed Dr. Chen and Dr.  
10 Rodden's algorithm using the same data set from Florida;  
11 correct?

12 A. That's correct.

13 Q. And you wrote a paper about that; correct?

14 A. I did.

15 Q. And, in fact, didn't Dr. Chen and Dr. Rodden disclose  
16 pseudocode with that paper?

17 A. No.

18 Q. You don't believe they disclosed their pseudocode.

19 A. We can get into this as much as you want because I know  
20 this as well as anybody. In fact, I know it better than Dr.  
21 Chen and Dr. Rodden, I think. I've looked at that extensively.  
22 I know exactly what they're doing.

23 Dr. Chen and Dr. Rodden have no technical publications on  
24 their algorithm. They have no publications on their algorithm.  
25 I have I don't know how many publications on my algorithm, lots

1 of them, on different pieces. The PEAR paper has different  
2 pieces of the algorithm. This has different pieces of the  
3 algorithm. It all comes together. It's been reviewed in  
4 operations research. It's been reviewed by the supercomputing  
5 community. It's been reviewed by the statistics community.  
6 It's been reviewed by many different communities. And these  
7 are technical publications. These aren't, "Hey, I have an idea  
8 that maybe you could do this."

9 I also write in political science. I write for the legal  
10 community. I write differently for all of those. It's been  
11 vetted by lots of communities.

12 Dr. Chen and Dr. Rodden have a political science paper that  
13 doesn't disclose their algorithm, doesn't have code, doesn't  
14 sufficiently explain what they're doing. It is not the same  
15 thing at all.

16 Q. So, Dr. Cho, as I understand it, you've criticized Dr. Chen  
17 for the fact that what he produced as a pseudocode is not  
18 really pseudocode; correct?

19 A. It is not even descriptive, in my opinion.

20 Q. And you've criticized him in the Pennsylvania case --

21 A. Yes.

22 Q. -- for not producing his code; is that right?

23 A. What I'm criticizing is that -- first of all, in  
24 Pennsylvania, he runs an algorithm, and I understand his  
25 algorithm completely. He --

1 Q. Dr. Cho, again, we're on a timed trial here and I just want  
2 an answer to my simple question.

3 In Pennsylvania you criticized Dr. Chen for not disclosing  
4 his code not just in that case, but, as we saw from your  
5 report, to his peers and to the entire scientific community;  
6 correct?

7 A. Because he has no technical publications and I have a lot.

8 Q. But you likewise have not disclosed your code to any of  
9 your peers or anybody in the scientific community, have you?

10 A. We don't disclose code. We disclose ideas. We explain to  
11 people how things work, how to do them. Code is just something  
12 you write after you understand what to write.

13 Q. In fact, in Pennsylvania, Dr. Chen did produce his code in  
14 that case; correct?

15 A. Yes.

16 Q. It was subject to a confidentiality agreement that you  
17 refused to sign; is that right?

18 A. This is correct. And you would know this as well as I  
19 would because you were my attorney. And I explained to you why  
20 I wouldn't sign that confidentiality agreement. And it was  
21 because I would have to give up my intellectual property  
22 because of the way it was written, and I was not willing to do  
23 that.

24 And furthermore, I explained to you, I didn't need to see  
25 that code, because he had an idea just like I have an idea.

1 And I know his idea doesn't work, regardless of what the code  
2 is.

3 So, for instance, if you were going to tell me, you know,  
4 there's a live elephant in the room, and you had a little box,  
5 a little wooden box that was maybe two inches by two inches by  
6 two inches, and you told me you were going to put that live  
7 elephant in the box, I don't need to see your code for how to  
8 do it. I can just tell you, you can't do it.

9 Q. Dr. Cho, let me stop you, again.

10 So in Pennsylvania, Dr. Chen required his code to be  
11 subject to a confidentiality order, and you refused to sign  
12 that order. In this case, you required your code to be subject  
13 to a confidentiality protective order; is that correct?

14 A. I didn't need to see his code to know that the idea  
15 wouldn't work. If you look at my publication about his method,  
16 I explain to you why his method doesn't work. It's independent  
17 of the code.

18 Q. Dr. Cho, I apologize for cutting you off --

19 JUDGE BLACK: Excuse me. Excuse me. Would you  
20 restate the question, please.

21 MR. TUCKER: Thank you, Your Honor.

22 Q. Dr. Cho, in this case you required that your code be  
23 subject to a confidentiality protective order; correct?

24 A. Yes.

25 Q. Thank you. And for that reason, it cannot be disclosed to

1 anybody outside certain parties that are subject to that order;  
2 is that correct?

3 A. That's correct.

4 Q. And are you aware that plaintiffs' counsel in this case had  
5 moved to seal your code?

6 A. Yes.

7 Q. So this would prohibit any of your peers who might be in  
8 the courtroom today from being able to see more than a quarter  
9 page of your code?

10 A. I guess within the courtroom today, that would be true.

11 Q. And Dr. Pegden makes his code available on his Web site,  
12 doesn't he?

13 A. He does.

14 Q. Were you aware that Dr. Warshaw produced code that he used  
15 in this case?

16 A. No.

17 Q. Now, Dr. Cho, you agree that in an academic setting people  
18 will generally run the algorithm on a smaller data set to  
19 verify it works? In fact, I think that was what you were just  
20 explaining that you did.

21 A. It's a common practice, yes.

22 Q. And you did that with your algorithm in this case; correct?

23 A. Correct.

24 Q. But this smaller data set is not discussed anywhere in your  
25 report, is it?

1 A. No.

2 Q. And you didn't produce that smaller data set in this case,  
3 did you?

4 A. It's publicly available. Anyone can get it.

5 Q. There's no analysis of this smaller data set in your  
6 report?

7 A. Not in my report, but there's extensive analysis in some of  
8 my other publications.

9 Q. Dr. Cho, I want to shift gears a little bit and talk about  
10 the partisan bias metrics that you employed after you generated  
11 your set of 3 million maps.

12 After you ran your simulation, you then compared your  
13 simulated maps against the enacted map using a number of  
14 different partisan metrics; is that right?

15 A. That's correct.

16 Q. And, in particular, you compared the number of seats won by  
17 the Republicans -- or I should say the predicted number of  
18 seats that would have been won by Republicans -- under the  
19 enacted map with the expected number of seats to be won by  
20 Republicans under each of your simulated maps; right?

21 A. Correct.

22 Q. Now to calculate the number of seats won by Republicans in  
23 each of your simulated maps you have to first estimate the  
24 number of Democrats and Republicans in the state; correct?

25 A. Correct.

1 Q. And I think, as you state in your rebuttal report, you were  
2 trying to determine how many Republicans and how many Democrats  
3 are in Ohio?

4 A. Correct.

5 JUDGE BLACK: You need to slow down.

6 Q. And to do this you use past election data?

7 A. Past and current, yes.

8 Q. But you agree there's no perfect measure of which election  
9 data to use; right?

10 A. Yes. It's an estimate.

11 Q. Using elections that are good for Republicans will make the  
12 state look more Republican?

13 A. That was the point I made in my rebuttal report, yes.

14 Q. Similarly, using elections that are good for Democrats will  
15 make it look like the state has more Democrats?

16 A. Yes.

17 Q. Now, to calculate the estimated partisan makeup of each  
18 district in each of your 3 million simulated maps, you used  
19 election data from eight statewide races in 2008 and 2010; is  
20 that right?

21 A. I'm counting.

22 Yes.

23 Q. Even though you're then attempting to compare those metrics  
24 to the outcomes of congressional elections that occurred in  
25 2012 to 2018; correct?

1 A. Correct.

2 Q. So you were assuming that the way someone votes in a  
3 statewide election is how they will vote in a congressional  
4 election?

5 A. Incorrect.

6 Q. Why is that incorrect?

7 A. I'm measuring underlying partisanship. I'm not measuring  
8 your vote.

9 Q. But you're measuring whether or not somebody is a Democrat  
10 or a Republican and then comparing that to the results of  
11 congressional elections; correct?

12 A. Yes.

13 Q. Well, there are lots of unique factors that go into  
14 congressional elections; correct?

15 A. Correct.

16 Q. One is incumbency, isn't it?

17 A. Correct.

18 Q. And there can be cross-ticket voting?

19 A. Absolutely.

20 Q. So a voter may vote for a Democratic governor and a  
21 Republican congressman?

22 A. Correct.

23 Q. Now, I believe you indicated the average two-party  
24 Democratic vote share, based upon the eight elections you used,  
25 was 48.68 percent?



1 A. I don't have it in front of me, but I'll take your word for  
2 it.

3 Q. And the most common outcome using this index for your  
4 simulations was eight Republican seats; is that right?

5 A. I think so, yes.

6 Q. Now, you could have used 2012 to 2016 congressional  
7 elections to determine the partisanship of each district;  
8 right?

9 A. I could have, yes.

10 MR. TUCKER: Let's take a look at your rebuttal  
11 report. Can we please pull up Plaintiffs' Exhibit 88, and  
12 please turn to page 12, Table 3.

13 One second, Your Honor. I think I have the wrong table.

14 JUDGE BLACK: Very well.

15 MR. TUCKER: Please turn to page eight, Table 2.

16 Q. Okay. In this table, Dr. Cho reflects the Republican vote  
17 share for congressional elections since 2010 in the second  
18 column; correct?

19 A. Yes.

20 Q. So the Democratic vote share would just be the inverse of  
21 that number from a hundred; right?

22 A. Right. It's two party.

23 Q. So in 2012, the Democratic vote share would have been 49  
24 percent?

25 A. Yes.

1 Q. And in 2014, it would have been 40 percent?

2 A. Yes.

3 Q. And in 2016 --

4 A. Now you're taxing my simple calculation abilities.

5 Q. I have the advantage of doing it in advance, so --

6 A. Then I'll take your word for it.

7 Q. And in 2016, it would be 41.8 percent; correct?

8 A. Okay.

9 Q. So if you had used congressional elections for 2012, 2014,  
10 2016, you would have had an index that would have had a lower  
11 Democratic vote share; correct?

12 A. This is true. And I explained in my report why one  
13 wouldn't want to do that, not just why I didn't do that, why  
14 people shouldn't do that.

15 Q. And that, in turn, would have caused your simulation to  
16 create, likely, more Republican seats; correct?

17 A. Yes.

18 Q. Now, in your rebuttal report you also indicated that you  
19 then looked at an index using 2012 to 2014 statewide elections.  
20 Do you recall that?

21 A. Yes, that's correct.

22 Q. And I believe you calculate the two-party vote share,  
23 again, as pretty close to something like 48.6 percent?

24 A. I'll take your word for it.

25 Q. But you did not include all statewide races in 2014, did

1 you?

2 A. That's correct.

3 Q. In fact, you eliminated three races: The attorney general,  
4 the governor, and the secretary of state races in 2014; right?

5 A. Also correct.

6 MR. TUCKER: Can we pull up on the rebuttal report  
7 page 11, Table 4.

8 Q. And, in fact, each of those races were won by the  
9 Republican candidate by 60 percent or more; correct?

10 A. Correct.

11 Q. But these were contested races?

12 A. They were, yes.

13 Q. And had you included those, that would have dropped the  
14 Democratic vote share; correct?

15 A. That is correct.

16 Q. Dr. Cho, now I want to skip quickly to your supplemental  
17 report, which is Plaintiffs' Exhibit 426.

18 A. I see it.

19 Q. On page three you indicate that when you use 2018 statewide  
20 election data and overlay that data over your 3 million  
21 simulated maps, you actually result in almost 1500 maps that  
22 would be predicted to have 12 Republican seats; correct?

23 A. Correct. It's not visible on the plot, but, yes, there are  
24 12-4 maps. It's not visible on the plot because it's so small  
25 compared to nine seats, it's not visible. But there's

1 something there, yes.

2 Q. But using only nonpartisan criteria, you were able to draw  
3 some maps that would result in 12 Republican seats; correct?

4 A. Yes, it's possible.

5 Q. Now are you aware that plaintiffs are offering a remedial  
6 map in this case?

7 A. I heard something about it. I really -- I haven't seen it.  
8 I don't know anything about it.

9 Q. You have not seen that remedial map?

10 A. I have not.

11 MR. TUCKER: Can we pull up Plaintiffs' Exhibit 90.

12 Q. I'll represent to you this is the first page of the report  
13 authored by Dr. Cooper -- or Mr. Cooper in this case.

14 A. Okay.

15 Q. You have not seen this report before?

16 A. I have not.

17 Q. Okay. Will you please turn to page three. In paragraph 5,  
18 do you see where Mr. Cooper says that he also "drew the plan in  
19 compliance with the requirements of the 2018 Ballot Initiative  
20 approved by Ohio voters in May 2018"?

21 A. I see it.

22 Q. And then below in paragraph 6, do you see where he  
23 indicates that he drew the remedial plan to comply with  
24 traditional redistricting criteria, including equipopulation,  
25 contiguity, compactness, compliance with the Voting Rights Act,

1 and preserving communities of interest?

2 A. I see it.

3 Q. And you understand those to be nonpartisan, neutral  
4 districting criteria, correct?

5 A. Well, they can be. Sometimes compliance with the VRA will  
6 encompass some partisan aspect, and then it's not. But they  
7 can be, yes, as well as preserving communities of interest.

8 Q. Now I want to refer to Plaintiffs' Exhibit 91, in  
9 particular, Exhibit S.

10 And, Dr. Cho, I'll represent to you this is a chart  
11 provided by Mr. Cooper and is a comparison of the 2012, 2014,  
12 and 2016 House election results between the enacted plan in  
13 Ohio and his remedial plan. Okay?

14 A. Okay.

15 Q. I want you to look at 2014. How many districts would have  
16 a Republican vote share of 50 percent or greater?

17 A. In what?

18 MR. SUBHEDAR: Your Honors --

19 JUDGE BLACK: Excuse me.

20 MR. SUBHEDAR: -- I'm just going to object as lack of  
21 foundation.

22 JUDGE BLACK: Very well. It's noted.

23 A. I'm sorry. In what?

24 Q. For 2014, how many of the districts in Mr. Cooper's  
25 remedial plan would have a two-party Republican vote share of

1 50 percent or more?

2 A. So is this one Republican or Democratic? It's Democratic;  
3 right?

4 Q. Well, I guess it's fair to say you can't figure that out  
5 without -- the extent of it there.

6 So these are the two-party Democratic vote shares. So if  
7 it's easier, let me reask the question in a better way.

8 How many districts in Mr. Cooper's remedial plan in 2014  
9 have a Democratic vote share of under 50 percent?

10 A. Of under 50 percent?

11 Q. Yes.

12 A. Is it 11? I'm not sure.

13 Q. I think it's 12.

14 A. Twelve?

15 Q. District 12, 2 --

16 A. It could be 12.

17 Q. Okay. And then in 2016, how many districts in Mr. Cooper's  
18 remedial plan do you see have a Democratic two-party vote share  
19 of under 50 percent?

20 A. Is it 11, or is it 12, again?

21 Q. I get 11 this time.

22 A. All right.

23 Q. So, Dr. Cho, I want to now turn back. Thank you for  
24 endeavoring me in that. I want to turn back to your report.

25 So that's Plaintiffs' Exhibit 87 on page 33. And the paragraph

1 that starts "Figure 19." The last sentence you state, "There  
2 were also cases of 6 seats and 11 seats, but those occurred so  
3 infrequently in comparison to 7-10 seats that the histogram  
4 bars for 6 and 11 seats are barely even visible in the plot."  
5 Correct?

6 A. I see it, yes.

7 Q. And in none of your maps under this data did you get 12  
8 Republican seats?

9 A. Which date is this, '08-'10?

10 Q. Yes.

11 A. That's correct.

12 Q. So although Mr. Cooper uses nonpartisan criteria to draw a  
13 remedial map, and his analysis shows that in 2014 that map  
14 would be predicted to result in 12 Republican seats, and in  
15 2016 it would be predicted to result in 11 Republican seats,  
16 none of your 3 million maps predict that, do they?

17 A. This is a completely different exercise.

18 MR. SUBHEDAR: Can I just have a continuing objection  
19 to the lack of foundation?

20 JUDGE BLACK: Yes. Thank you.

21 A. It's a completely different exercise than what I'm doing.  
22 He's looking at congressional districts. So this is not -- I'm  
23 looking at underlying partisanship. We're talking about  
24 different things here.

25 Q. And are you aware that Mr. Cooper tried not to pair

1 incumbents in his remedial map?

2 A. I saw that.

3 Q. So, Dr. Cho, isn't it true, at the end of the day, we don't  
4 know if the differences in the partisan makeup of the enacted  
5 map and your 3 million simulated maps are the result of some  
6 partisan intent, or possibly other nonpartisan criteria that  
7 your simulation did not consider, like incumbency protection?

8 A. That's untrue.

9 Q. But you don't know, because you didn't factor in certain  
10 other nonpartisan criteria?

11 A. No, that's not why it's untrue. What's untrue is I've  
12 already said you can get a 12-4 map. Right? These maps are  
13 possible. In fact, I created some of them. And, in fact, they  
14 are possible from a nonpartisan process. You can get a 12-4  
15 map from nonpartisan process.

16 What I'm trying to explain is, that's super unlikely, but  
17 it could happen. It's like the thousand heads in a row. It  
18 can happen. But if I saw a thousand heads in a row, I'd be  
19 suspicious that that was a fair coin. I'm not saying it's not  
20 a fair coin because that can happen.

21 And I'm demonstrating for you here that you can get a 12-4  
22 map from a nonpartisan process. That can happen, yes. But  
23 given that the distribution I produced places it somewhere  
24 else, and then you have these, you know, allegedly nonpartisan  
25 other decisions that go into it, and it moves that effect all



1 the way to the right, it's like the thousand coins. Because if  
2 it was really not partisan, then sometimes it would make it a  
3 little more Republican, sometimes it would makes it a little  
4 more Democratic, because it's not partisan. It shouldn't have  
5 a biased effect. It shouldn't be that the nonpartisan decision  
6 made it a little more Republican, and then the next nonpartisan  
7 decision made it a little bit more Republican. It's like the  
8 heads. Heads, heads, heads, heads, heads. It's like after so  
9 many heads, I'm thinking, "Let me see that coin."

10 Q. But, Dr. Cho, you don't know how much more likely 12  
11 Republican seats would be if you factored in an incumbency  
12 protection, do you?

13 A. If I -- if I made the maps separate the incumbents, then I  
14 don't know, yes.

15 Q. Thank you. And, Dr. Cho, you're not offering any opinions  
16 in this case on how much partisanship is too much; correct?

17 A. I am not.

18 Q. You're not testifying that a particular number of districts  
19 must be competitive for the map to be constitutional?

20 A. I am not.

21 Q. You're not testifying how many additional seats the  
22 Republicans must have gained for it to be called an  
23 unconstitutional partisan gerrymander, are you?

24 A. No. I present an analysis and I say, "This is possible and  
25 it's unlikely," and I show you, you know, what's likely and

1 what's not, and I think it's for the Court to decide is that  
2 unlikely enough that they're willing to say, "That's a lot of  
3 evidence that it's partisan." That's for the Court.

4 I just supply the histograms, and the -- you know, these  
5 pictures, and then they -- it's for the Court to say, "This is  
6 typical, this is not typical," or how typical they want it to  
7 be before they say it's unconstitutional.

8 MR. TUCKER: Your Honor, I know that I'm about to  
9 start treading dangerously into the Court's lunch hour. I  
10 think I have one more section left that I can wrap up in about  
11 ten minutes, if the Court would like me to proceed.

12 JUDGE BLACK: You can proceed with ten minutes.

13 MR. TUCKER: Thank you.

14 Q. Now, Dr. Cho, in your report you also analyze how each  
15 individual plaintiff in this case would fare under all of your  
16 3 million simulated maps versus how they fared under the  
17 enacted map; correct?

18 A. Yes. I provided a graphic on that.

19 Q. And I'm actually going to put up plaintiffs demonstrative  
20 106, which I think was discussed with you yesterday. And I  
21 think -- I believe that you testified about this demonstrative  
22 yesterday.

23 A. I did, yes.

24 Q. The blue lines represent the total distribution of  
25 Democratic vote shares in all of your 3 million simulated maps;

1 correct?

2 A. That's correct.

3 Q. And the blue X, as you indicate in the demonstrative, or as  
4 the plaintiffs' attorneys have indicated, is the mean of the  
5 simulated maps?

6 A. Correct.

7 Q. And the circle is the median; correct?

8 A. Correct.

9 Q. Now, there are several plaintiffs that are not going to be  
10 in a district that has a 50 percent or greater Democratic vote  
11 share in any of your 3 million maps; right?

12 A. I don't know which ones they are, but there were some, as I  
13 recall.

14 Q. So if you look at District 5 -- or number -- yeah, District  
15 5, Plaintiff Deitsch, the whole distribution is below the 50  
16 percent line; correct?

17 A. I can't tell, but -- yes.

18 Q. And the same would be true for Plaintiff Nadler?

19 A. Just a second. Let me go back a little.

20 Yes.

21 Q. And the same would be true for Plaintiff Megnin?

22 A. Yes.

23 Q. And the same would be true for Plaintiff Thobaben?

24 A. Who?

25 Q. In the 15th District.

1 A. Yes.

2 Q. And for several others, the mean and the median value, so  
3 in your average map, they're still going to be in a district  
4 that has got a less-than-50-percent Democratic vote share;  
5 correct?

6 A. I think so, yes.

7 Q. So, for example, in District 4, Plaintiff Libster would  
8 fall in that category?

9 A. Yes.

10 Q. And in District 12, Plaintiff Dagres would fall in that  
11 category?

12 A. Yes.

13 Q. Let's take a look at Plaintiff Myer in District 13. Well,  
14 actually, let's -- I need to shift to the actual figure in your  
15 report.

16 MR. TUCKER: So can we pull up Plaintiffs' Exhibit 87.  
17 I'm sorry. Wrong one. Plaintiffs' Exhibit 426, page seven,  
18 Figure 4.

19 A. I'm sorry. What are we looking at? The supplemental?

20 Q. Yes. It's the supplemental report, page seven, Figure 4.  
21 Do you recognize this figure?

22 A. I do.

23 Q. And this is a similar figure to what we were just looking  
24 at, but now you've got additional data points showing the vote  
25 shares based on various election data; correct?

1 A. Correct.

2 Q. So looking at Plaintiff Myer in District 14, no matter  
3 which election returns data you look at, Plaintiff Myer is in a  
4 district with higher Democratic vote share than any of your  
5 simulated maps; correct?

6 A. Yes. And that's true for several of the plaintiffs.

7 Q. And, in fact, in some of these simulated maps, even though  
8 Plaintiff Myer is currently in a district that's going to elect  
9 a Democrat, she's in a district that may elect a Republican;  
10 correct?

11 A. Well, yes, that's correct. But then later on, the flip  
12 side, when you were explaining this the other way, you didn't  
13 say -- you biased it in the other direction. So, for instance,  
14 if the district doesn't hit 50 percent, I feel like you're  
15 implying, therefore, they couldn't elect a Democrat. I think  
16 that's not true.

17 So, for instance, in my supplemental report on the previous  
18 page, in Congressional District 12, they almost elected a  
19 Democrat. Right? And if that district had been a little bit  
20 more Democratic, they probably would have popped over that  
21 line, because they were right smack -- right below that line.

22 So if you increase it and you make it more competitive,  
23 that's good for that plaintiff. And that district could elect  
24 a Democrat, even though there were fewer than -- even though  
25 it's under 50 percent.

1       So I guess that characterization where you're saying, "Here  
2 now," and you're going on the flip side and you're saying,  
3 "Well, this definitely wouldn't happen," on the other side, you  
4 didn't say the same thing.

5 Q. Well, Dr. Cho, I think the point here is that when your  
6 simulation is drawing maps and it's making changes to  
7 districts, those changes, it might benefit one of the  
8 plaintiffs and it might make one of the plaintiffs worse off;  
9 correct?

10 A. It's possible, yes.

11 Q. Redistricting is a zero-sum game; correct?

12 A. Yes.

13 Q. Now, Dr. Cho, you are not opining that any particular  
14 plaintiff lacks the ability to have an influence on their  
15 member of Congress, are you?

16 A. If that means could the plaintiff, like, call up his  
17 congressman, make a plea and influence his congressman, yeah,  
18 anyone can do that.

19 Q. And you're not testifying any particular plaintiffs have  
20 been shut out of the political process, are you?

21 A. I'm actually not making any statement about this graphic.  
22 This is also something that I think of as I'm supplying  
23 information and I supply it across multiple data sets, multiple  
24 years, in different ways.

25       It's kind of like my last analysis. When I was looking at

1 the maps I did it for, you know, elections before the  
2 redistricting, I did it for elections after the redistricting.  
3 I'm not telling the Court what to do. I'm supplying  
4 information, and I'm doing the same thing here.

5 I'm not saying this plaintiff this, that plaintiff that.  
6 I'm supplying information, and they can look at that and, you  
7 know, synthesize that as a whole, I think. That's how I view  
8 my role here.

9 Q. I just want to make sure it's clear for the record. So  
10 your answer to my question was a no, you're not offering that  
11 opinion?

12 A. No, I'm not offering opinions.

13 MR. TUCKER: Thank you, Dr. Cho. No more questions.

14 JUDGE BLACK: Does the plaintiff have redirect?

15 MR. SUBHEDAR: I will have some. I didn't know if  
16 anybody --

17 JUDGE BLACK: Oh, I'm sorry. Is the defense going to  
18 examine?

19 MR. McKNIGHT: I don't believe we have any questions,  
20 Your Honor.

21 JUDGE BLACK: Very well.

22 MR. SUBHEDAR: So I will have some redirect. I need  
23 to figure out exactly how much. It may be a good time to take  
24 the lunch break, Your Honor.

25 JUDGE BLACK: Do you have a sense for how long?

1 MR. SUBHEDAR: Probably, maybe 15, 20 minutes, maybe a  
2 little bit longer.

3 (Judges confer privately.)

4 JUDGE BLACK: Are you familiar with this Judge's  
5 commitment to a timely lunch?

6 MR. SUBHEDAR: Yes, I am, Your Honor.

7 JUDGE BLACK: Let's break for an hour till 1:05.  
8 We'll have a short redirect and hope not to keep the  
9 defendants' witness waiting.

10 MR. SUBHEDAR: Yes, Your Honor.

11 JUDGE BLACK: Break until 1:05. The witness is not to  
12 discuss her testimony during the break.

13 And she understands; correct?

14 THE WITNESS: She does.

15 JUDGE BLACK: Thank you.

16 COURTROOM DEPUTY: All rise. This court is in recess  
17 until 1:05.

18 (Witness temporarily excused.)

19 (At 12:05 PM, a luncheon recess was taken.)

20 - - -

21 AFTERNOON SESSION

22 (In open court at 1:05 PM.)

23 JUDGE BLACK: Thank you. Please be seated.

24 The witness can re-take the witness stand.

25 (Wendy K. Tam Cho resumes the witness stand.)



1 MR. TUCKER: Your Honor, if I may.

2 JUDGE BLACK: Yes.

3 MR. TUCKER: Apologies for interrupting. We have one  
4 housekeeping matter.

5 JUDGE BLACK: Yes.

6 MR. TUCKER: Intervenors want to move for the  
7 admission of certain exhibits that were used during the  
8 cross-examination.

9 JUDGE BLACK: Very well.

10 MR. TUCKER: Exhibits Plaintiffs' 89, Plaintiffs' 428,  
11 Plaintiffs' 442, Intervenors' 5, Joint Exhibit 3.

12 And we also seek to move for the admission of Dr. Cho's  
13 report from the League of Women Voters case in Pennsylvania and  
14 the transcript from her trial testimony in the case in  
15 Pennsylvania.

16 JUDGE BLACK: Any objection as to the admission of  
17 those exhibits?

18 MR. SUBHEDAR: One moment, Your Honor.

19 (Plaintiffs' counsel confer privately.)

20 MR. SUBHEDAR: I think there may be some of those that  
21 are not on the exhibit list that was given to us previously.

22 JUDGE BLACK: If you'd keep your voice up for this old  
23 man.

24 MR. SUBHEDAR: I'm sorry. I believe there are some of  
25 those that may not have been on the exhibit list that was

1 provided to us earlier. So in terms of having them admitted  
2 into evidence, I would need to just cross-check those, if I  
3 could.

4 MR. TUCKER: Your Honor, we will admit that the report  
5 and the trial transcript were not on the exhibit list. They  
6 were impeachment exhibits. But under Rule 613(b), they can be  
7 admitted as substantive evidence.

8 JUDGE BLACK: Very well. Any objections?

9 MR. SUBHEDAR: No, Your Honor.

10 JUDGE BLACK: They're admitted.

11 (Joint Exhibit 3, Plaintiffs' Exhibits 89, 428 and 442;  
12 Intervenors' Exhibit 5; Dr. Cho's report from Pennsylvania  
13 League of Women Voters case and Dr. Cho's Pennsylvania trial  
14 testimony were admitted.)

15 MR. STRACH: Your Honor?

16 JUDGE BLACK: Yes. Good afternoon.

17 MR. STRACH: Good afternoon.

18 JUDGE BLACK: I missed you this morning.

19 MR. STRACH: I'm glad to hear that. I wanted to  
20 notify the Court that one of my clients is in the room today --  
21 Frank Strigari with the Ohio Senate -- just for the Court's  
22 information.

23 JUDGE BLACK: Thank you. He's been here before;  
24 right?

25 MR. STRACH: Yes, Your Honor.

1 JUDGE BLACK: Good to have you back. This has been  
2 exponentially fun.

3 THE WITNESS: I object.

4 (Laughter.)

5 JUDGE BLACK: I'm not sure either word is used right.  
6 Be that as it may, pull yourselves together.

7 The witness remains under oath, and she understands?

8 THE WITNESS: Yes.

9 JUDGE BLACK: Redirect?

10 MR. SUBHEDAR: Thank you, Your Honor.

11 REDIRECT EXAMINATION

12 BY MR. SUBHEDAR:

13 Q. Dr. Cho, on cross-examination you provided some testimony  
14 in response to counsel's questions about how your simulations  
15 process generated, I think you used the phrase, billions of  
16 maps and then you took a sample of that to get to the 3 million  
17 maps on which you have presented analysis and opinions; is that  
18 correct?

19 A. That's correct.

20 Q. Okay. Can you explain how you know that the -- well,  
21 strike that.

22 Are the billions of maps that I just referred to, are those  
23 billions of maps representative of the entire set of feasible  
24 maps that result once you apply the legal requirements and the  
25 traditional districting criteria that you applied as

1 constraints in your process?

2 A. Yes. So the approximately 300 billion maps that were  
3 created are a representative sample of the underlying set, and  
4 the 3 million maps I presented, which is a sample of that, you  
5 know, billions of maps is also a representative set.

6 Q. Okay. So how do you know that the billions of maps are  
7 representative of the entire set of feasible maps that result  
8 once you apply the constraints that you applied?

9 A. So the billions of maps is actually what is output from the  
10 algorithm, and I pare it down 3 million because it's so much  
11 output to process.

12 So to prevent that issue, I sample from that the billions  
13 of maps that are actually output, that is the original  
14 representative set, and then I create a set that's also  
15 representative, that's smaller, via a technique it would be  
16 just one MC. It would just be a regular Monte Carlo.

17 And that -- I don't know if I would call that technology,  
18 but the way to do that is actually very common and very well  
19 known.

20 Q. Okay. So focusing on the billions of maps, can you explain  
21 how you know that the billions of maps are representative of  
22 the full set of feasible maps?

23 A. So that is what I was referring to as what is output from  
24 the EMCMC algorithm. And I think we talked about how I know  
25 that that's a representative set. You know, it's built on this

1 theorem that we had already discussed, and then we had  
2 discussed other stuff about how I built off of the theorem and  
3 then I have all these publications about it.

4 Q. Okay. And then going from the billions of maps down to the  
5 3 million sample that you then analyze and presented  
6 conclusions on, how do you know that the 3 million maps are  
7 representative of the billions of maps?

8 A. So I think I just said that. That going from the billions  
9 to the 3 million is a result of what we call just a regular  
10 Monte Carlo sampling algorithm, and that's actually extremely  
11 well known. I don't think anyone would question that. There  
12 actually is no innovation there on my part. It's a very  
13 standard technique, and you can see it in the code, how it's  
14 done. It's actually very simple.

15 MR. SUBHEDAR: Okay. Can we pull up Dr. Cho's expert  
16 report from the Pennsylvania case. And let's go to page 18,  
17 Footnote 4.

18 Q. Now, Dr. Cho, you were asked some questions during your  
19 cross-examination about this footnote, and I'd like you to take  
20 a moment to read -- you can read the entire footnote to  
21 yourself if you'd like, but I want to draw your attention to  
22 the sentence roughly in the middle that starts with "Further,  
23 indeed, the point is not whether."

24 Do you see that sentence?

25 A. I do.

1 Q. Okay. So what I'd like to ask you is whether anywhere in  
2 this footnote you have criticized Dr. Chen for not publishing  
3 his code.

4 A. No, I have not.

5 Q. And what are you criticizing Dr. Chen for in this footnote?

6 A. I'm criticizing him for not telling anybody what his  
7 algorithm is in sufficient detail or to have had that algorithm  
8 vetted by the scientific community, that he doesn't have any  
9 publications, he never explained to anyone what even the  
10 algorithm is. The code is irrelevant.

11 Q. Okay. So at any time in the Pennsylvania litigation,  
12 whether this in footnote or otherwise, did you offer a  
13 criticism of Dr. Chen for not having published his code?

14 A. No.

15 Q. Okay. Now let's talk about the algorithm that you used in  
16 this case. And let's pull up Plaintiffs' Exhibit 428, please.

17 Now, you were asked some questions during cross-examination  
18 about this article. First of all, let me ask you did you  
19 publish the algorithm that you used in this case in this  
20 article?

21 A. Yes.

22 Q. Okay. And is this article peer reviewed?

23 A. Yes.

24 Q. Now, you were asked some questions about whether you  
25 disclosed code in this article. And just to confirm, you did

1 not disclose any actual code in this article; correct?

2 A. I did not.

3 Q. Okay. Now, in your many years of submitting articles for  
4 publication in peer-reviewed journals and other publications,  
5 have you ever come across a situation in which the submission  
6 of your code was part of the peer-review process?

7 A. No. It's never part of the peer-review process.

8 Q. Okay. Now, in your --

9 MR. SUBHEDAR: And we can take that down. Thank you.

10 Q. In your initial expert report, which was Exhibit P087, and  
11 in your follow-on reports, your supplemental report and your  
12 rebuttal report, you presented a number of analyses in which  
13 you use different sets of data in connection with your  
14 simulated maps; is that correct?

15 A. That's correct.

16 Q. Okay. And I believe in one case you use 2008 and '10, in  
17 some cases you use 2012 to 2014, and in other cases 2018. And  
18 you testified to this on cross; right?

19 A. Yes.

20 Q. Okay. Now, when you were using these different sets of  
21 election returns, did you consistently use only statewide  
22 election data?

23 A. I did.

24 Q. Okay. And did you consistently exclude -- strike that.

25 Did you consistently include only those elections that were

1 competitive?

2 A. I did.

3 Q. Okay. And what was the definition of competitive that you  
4 used in that regard?

5 A. So the definition I used was that the result was within  
6 this --

7 Did you say competitive or not competitive?

8 Q. Competitive.

9 A. So it's competitive if it's within this 40-60 range, 40  
10 percent to 60 percent, the two-party split.

11 MR. SUBHEDAR: Okay. Can we please pull up  
12 Plaintiffs' Demonstrative 106.

13 Q. So in this demonstrative, Dr. Cho, what is the data that  
14 was -- the election return data that was used in conjunction  
15 with the simulated maps?

16 A. 2008-2010.

17 MR. SUBHEDAR: Okay.

18 And if we could pull up P087, please. And if we could go  
19 to Figure 1, please.

20 Q. In this figure --

21 MR. SUBHEDAR: Sorry. Figure 1, please, on page 13.

22 Q. So this is the histogram that you prepared for one of the  
23 plaintiffs in the case; correct?

24 A. Correct.

25 Q. Okay. And can you just clarify what election return data



1 you used in this regard when preparing this particular  
2 analysis.

3 A. This was also '08-'10. Everything in the initial report  
4 was from the '08-'10 data. I mean in my simulated stuff.

5 MR. SUBHEDAR: Okay. Now let's please pull up  
6 Plaintiffs' Exhibit 426.

7 And if we could go to page seven, Figure 4.

8 Q. Now, you provided some testimony on cross about this  
9 figure. I just wanted to confirm or clarify what is the  
10 election data that you use in conjunction with your simulated  
11 maps in order to generate these blue lines that are on this  
12 graph?

13 A. This one's from the 2018 election returns.

14 MR. SUBHEDAR: Okay. Can we please pull up  
15 Intervenor's Exhibit 5, I005.

16 Q. Now, you recall you were asked some questions by counsel  
17 about this particular letter; correct?

18 A. Yes.

19 Q. And can you just remind us, when did you serve your initial  
20 expert report in this case?

21 A. October 5th.

22 Q. Okay. And just so the record is clear, do you see a date  
23 on this letter?

24 A. October 12th.

25 Q. Okay. And those are 2018; correct?

1 A. Correct.

2 MR. SUBHEDAR: Okay. Let's pull up Plaintiffs'  
3 Exhibit 598, please.

4 Q. Now, you recall you were shown this document and asked some  
5 questions about this document during cross; correct?

6 A. Yes.

7 Q. And just to be clear, you had never read this report or  
8 this declaration prior to this?

9 MR. TUCKER: Objection, Your Honor.

10 JUDGE BLACK: Basis?

11 MR. TUCKER: I don't believe that was one of the  
12 documents that she was shown during cross.

13 (Plaintiffs' counsel confer privately.)

14 MR. SUBHEDAR: I'm sorry, Your Honor. I think that  
15 she may have been shown an earlier version of this declaration.  
16 I don't have the exhibit number for that.

17 Do you have that handy?

18 MR. TUCKER: Yeah. I believe she was shown P90 and  
19 P91.

20 MR. SUBHEDAR: Okay. Can we pull that up for a  
21 moment.

22 Q. Okay. So do you recall seeing this document during your  
23 cross-examination?

24 A. Yes.

25 Q. Okay. And you had never read this document before today.

1 A. No.

2 Q. Is that right?

3 A. That's correct.

4 Q. Okay. Now, as you can see, this has a title of the  
5 "Declaration of Williams S. Cooper," and you were shown some  
6 images, a table from this document, and asked to count how many  
7 of the percentages were below 50 percent. Do you recall that  
8 general testimony?

9 A. Yes.

10 Q. So let me now bring up Plaintiffs' 598. Now, do you see  
11 the title of this document is "Third Supplemental Declaration  
12 of William S. Cooper"?

13 A. Yes.

14 Q. And have you ever seen this document before?

15 A. No.

16 MR. SUBHEDAR: Okay. Let's go to page three, please,  
17 Figure 1.

18 Q. Okay. And do you recall during your cross-examination you  
19 were shown a table similar to this that did not have the final  
20 column with the "2018" label, but do you recall generally  
21 seeing a column similar to this during your cross-examination?

22 A. Yes.

23 Q. Okay. Now, you don't know how these numbers in this table  
24 were generated; is that correct?

25 A. I do not.

1 Q. Okay. Can you please look at the last column, 2018, and  
2 look at the heading "Proposed Plan." Do you see that column?

3 A. I do.

4 Q. Just for sake of comparison, can you take a look at the  
5 numbers in that column and count how many are under 50 percent.

6 A. I think eight, but I've been known to miscount.

7 MR. SUBHEDAR: Okay. I have no further questions,  
8 Your Honor.

9 JUDGE BLACK: Very well.  
10 Professor, you have survived and you are free to go.

11 THE WITNESS: Thank you.

12 JUDGE BLACK: Thank you.

13 (Witness excused.)

14 JUDGE BLACK: Where do we stand from the plaintiffs'  
15 perspective?

16 MR. FRAM: Your Honor, we have a couple of matters  
17 before we rest.

18 JUDGE BLACK: Yes.

19 MR. FRAM: First is the matter of moving into  
20 evidence, subject to the parties' right about their objections  
21 post-trial, our amended trial exhibit list. This was the  
22 Amended Appendix L to the motion we filed. As of this date we  
23 still have not received any opposition to that amendment. I  
24 don't know if an objection stands. But we have copies of that,  
25 and I'd be happy to provide it to the Court and the Court's

1 clerks at this time.

2 JUDGE BLACK: You're speaking of your motion to --

3 MR. FRAM: Our motion attached an amendment to  
4 Appendix L. Appendix L was plaintiffs' trial exhibit list --

5 JUDGE BLACK: Right.

6 MR. FRAM: -- per the Court's pretrial order.

7 JUDGE BLACK: Right.

8 JUDGE WATSON: What's the ECF number, if you recall?

9 MR. FRAM: Of the filing --

10 JUDGE WATSON: Yeah.

11 MR. FRAM: -- of the motion?

12 JUDGE WATSON: Yeah.

13 MR. FRAM: I can get that for you.

14 237, Your Honor.

15 JUDGE WATSON: Thank you.

16 JUDGE BLACK: Okay. We've got the document  
17 identified. I recall it.

18 MR. FRAM: If the Court would like, I've got hard  
19 copies. If not, we can just refer to the number.

20 JUDGE BLACK: I don't know where you're going. Where  
21 are you going?

22 MR. FRAM: We're moving into evidence the trial  
23 exhibits on that trial exhibit list.

24 JUDGE BLACK: And have they been discussed by  
25 witnesses?

1 MR. FRAM: Some of them are discussed in the  
2 deposition testimony, some by live witnesses. They have been  
3 subject to the meet and confer and exchange of objections the  
4 Court directed pretrial and are subject to the post-trial  
5 briefing that we discussed on the first day, if they continue  
6 to have any objections, if they stand on any of those  
7 objections.

8 JUDGE BLACK: All right. So you're moving into  
9 evidence all of the exhibits on your Amended Appendix L of ECF  
10 23?

11 MR. FRAM: Correct, Your Honor.

12 JUDGE BLACK: Is there an objection?

13 JUDGE WATSON: 237.

14 JUDGE BLACK: 237. My mistake.

15 MR. STRACH: Yes, Your Honor. And we don't object to  
16 their admission subject to the objections we've raised and our  
17 right to brief those. I will note that there are some exhibits  
18 that we will be discussing in the briefing that weren't used  
19 with any witness, so just to highlight that. That will be an  
20 issue, but we're certainly happy to brief these issues and  
21 allow the Court to move on today.

22 JUDGE BLACK: Very well.

23 The intervenors have anything further on this issue?

24 MR. LEWIS: Your Honors, as was discussed on day one  
25 of the trial, we do intend to oppose the motion to amend the

1 exhibit list to add 15 previously undisclosed exhibits. So we  
2 can have a brief on file over the weekend on that issue. But  
3 we think that that, you know, is a threshold issue that should  
4 be decided, at least with respect to the limited scope of  
5 documents that they're seeking to add as untimely exhibits.

6 JUDGE BLACK: The Court's inclined to admit them  
7 conditionally subject to post-trial brief objections. Did you  
8 need to be heard further in that regards?

9 MR. LEWIS: Your Honor, we do not.

10 JUDGE BLACK: Very well. They're admitted  
11 conditionally subject to post-trial brief objections.

12 (All exhibits listed in Amended Appendix L of ECF 237 were  
13 conditionally admitted.)

14 MR. FRAM: The second item, Your Honor, there are some  
15 joint exhibits, and we want to make sure that we move those in  
16 as well, specifically Joint Exhibits 1 through 31. They've  
17 already been lodged with the Court, the actual exhibits.

18 JUDGE BLACK: Is there any objection to the admission  
19 of Joint Exhibits 01 through 31?

20 MR. STRACH: No, Your Honor.

21 JUDGE BLACK: From the intervenors?

22 MR. LEWIS: No objections, Your Honor.

23 JUDGE BLACK: Joint Exhibits 1 through 31 are  
24 admitted.

25 (Joint Exhibits 1-31 were admitted.)

1 MR. FRAM: Finally, Your Honor, I mentioned the  
2 deposition designations that have been lodged with the Court  
3 per the Court's order. The docket number there is 230-1. And  
4 the designations and counter-designations for the plaintiffs  
5 were in Appendix A, and we'd like to move those in evidence,  
6 subject, again, to know there will be some post-trial briefing  
7 on objections.

8 JUDGE BLACK: Any objection to conditional admission?

9 MR. STRACH: Not to conditional admission.

10 JUDGE BLACK: From the intervenors?

11 MR. LEWIS: We join the defense.

12 JUDGE BLACK: Conditionally admitted.

13 (Plaintiffs' designations and counter-designations for  
14 depositions listed in Appendix A of ECF 230-1 were  
15 conditionally admitted.)

16 MR. FRAM: And finally, Your Honor, I just want to say  
17 for the record, I keep alluding to this post-trial objection  
18 process. We did discuss it on the first day. I just want to  
19 say the plaintiffs understanding of what this is in case  
20 there's -- before we rest.

21 JUDGE BLACK: And we want to suggest what we're  
22 looking for.

23 MR. FRAM: Okay. We're happy to --

24 JUDGE BLACK: I think the hope is that the plaintiff  
25 will file its findings of fact and conclusions of law first,



1 not simultaneously. That will give the defense an opportunity  
2 to look at your proposed findings of fact and conclusions of  
3 law, and they may be able to agree to some of them. So we're  
4 hoping to see findings of fact and conclusions of law after  
5 yours is filed, and we'll pin it down. We're negotiating this  
6 as we speak.

7 And then on the objections, you know, we'd like to see --

8 Do you want to state it?

9 JUDGE NELSON MOORE: We thought that each side should  
10 file a statement of their objections with their reasoning, and  
11 then each side should have a chance to respond to the  
12 objections raised against their own exhibits or evidence, and  
13 then a time for reply. And we hope that that would happen very  
14 quickly, and we thought five days after the trial concludes for  
15 the first wave of objections by each side, including the  
16 intervenors doing theirs, the defendants doing theirs and the  
17 plaintiffs doing theirs, and then five days later the  
18 responses, and then, if replies are necessary, doing that  
19 within another five days.

20 MR. FRAM: Understood, Your Honor.

21 I would suggest perhaps the following might be helpful.  
22 The time frame makes a lot of sense to us, first, and we talked  
23 about it on the plaintiffs' side, and we've actually made a  
24 proposal a few days ago to defendants and intervenors with a  
25 timeline roughly along those lines.

1       Our thinking, though, on a couple of buckets of evidence,  
2 we wouldn't need to restate the objections, necessarily, in  
3 five days, because we thought that's what we already had done.  
4 On pretrial we've been required to disclose our objections, and  
5 we did so, and so did the defendants and intervenors. So in  
6 some sense that's been taken care of. Similarly for the  
7 deposition designations. We've all done it.

8       The one place it hasn't been done is where you had live  
9 testimony at trial or something came up for the first time at  
10 trial that had not been subject to that pretrial process.  
11 There, of course, we understand there's a need for people to --  
12 per the Court's order, there's the opportunity for post-trial  
13 objections. Pretrial already said so on page six. We  
14 understand that. And our thinking would be, for that material,  
15 if you hadn't already lodged your objection pretrial on that  
16 exhibit or on that deposition designation, sure, five days  
17 after trial is a good time to come in with any new objections  
18 and then, five days thereafter, responses.

19       Our thinking was for anything where objections have already  
20 been lodged on the exhibits or the designations, that would be  
21 also on the same ten-day clock. So ten days after trial, all  
22 the responses to objections come on in. That had been our  
23 thinking about -- as we parsed out the different buckets of  
24 evidence.

25       Now, if that's consistent with -- if the Court wants to

1 revise that or has a different view --

2 JUDGE NELSON MOORE: We were hoping that maybe you  
3 would not be continuing with objections that had been raised  
4 previously but would be able to focus for us on what were the  
5 important objections, because some of them, frankly, seem very  
6 de minimus.

7 MR. FRAM: I appreciate that and share the sentiment.  
8 And we've been through a few rounds of this before, but of  
9 course -- how about the following? If any party wants to  
10 withdraw objections previously lodged, we should have to notify  
11 each other by that five-day deadline so that the ten-day  
12 response period is just focused truly on that which remains at  
13 issue? It avoids the evil of people coming up with whole new  
14 objections. It can go the other way, is my concern. We've  
15 been through the whole process, and it would be unfortunate to  
16 see, five days from now, people coming in with brand-new  
17 buckets of objections to documents and designations which we've  
18 already been through multiple rounds on.

19 JUDGE BLACK: All right. We're working this through.  
20 Where are the objections that you've been through rounds?

21 MR. FRAM: My understanding is we've got about -- on  
22 the exhibits --

23 JUDGE BLACK: Where are we going to find them?

24 MR. FRAM: Oh, where are you going to find them? You  
25 know, we've already -- we've exchanged --

1 Have they been filed with the Court, the objections?

2 MR. STRACH: We just exchanged them with each other.

3 MR. FRAM: Am I right about that? Because I know we  
4 have definitely exchanged a spreadsheet. We've got these  
5 spreadsheets where they list them and we've identified them to  
6 each other. We've even identified our responses to each other.

7 JUDGE BLACK: Okay. And where do we find that?

8 MR. STRACH: We would have to file it. It's a very --  
9 it's going to make your head hurt when you read it. It's a  
10 very --

11 JUDGE BLACK: My head already hurts.

12 (Laughter.)

13 MR. STRACH: We could certainly file that. We have a  
14 spreadsheet that has the latest iteration of what the parties  
15 have exchanged back and forth.

16 JUDGE NELSON MOORE: Okay. You know, we really don't  
17 want to be focusing on unimportant things here, and just --  
18 I've seen the various spreadsheets of objections. And for us  
19 to spend a lot of time on that is not a good way to resolve  
20 this case. So that's why we thought having you file, in five  
21 days, what your continuing objections are. And if you've  
22 already done all the work, you can just plop that into your  
23 position paper.

24 But as I say, some of the objections that both sides have  
25 raised seem that they're not really that consequential and we

1 don't want to need to spend time worrying about those.

2 The intervenor I guess has something to say.

3 MR. LEWIS: Your Honor, thank you very much.

4 You know, we certainly share the sentiment of the Court  
5 that it's not productive for any of us to be, you know,  
6 fighting unnecessarily over exhibits. If I may make the  
7 suggestion it may be better for us if the objections and  
8 responses are filed actually subsequent to the plaintiffs'  
9 proposed findings of fact. And the rationale for that is many  
10 of the exhibit objections hinge on the manner in which the  
11 exhibit is being used and the purpose for which the exhibit is  
12 being offered in evidence.

13 For this limited selection of documents that have been used  
14 live at trial, it is in fact true we have a pretty good idea,  
15 based on the trial testimony, how exactly those documents are  
16 going to be used. But as this Court is aware, the majority of  
17 the testimony is coming by deposition designation. And until  
18 we see the findings of fact and conclusions of law proposed by  
19 plaintiffs and really understand how they want to work with  
20 those documents, it's going to render some portion of those  
21 objections that we've lodged -- particularly, for example, on  
22 hearsay, you know -- difficult to dial in, whereas if we see  
23 the proposed findings of fact and conclusions of law, it may,  
24 frankly, render some of those objections moot or would allow a  
25 more refined process to address those objections.

1 JUDGE BLACK: We're looking for a refined process.

2 MR. FRAM: Yeah.

3 JUDGE BLACK: So you're on the right track.

4 MR. LEWIS: Thank you, Your Honor.

5 MR. FRAM: Might I suggest the following: that five  
6 days after trial we provide the Court with a spreadsheet where  
7 we boil down the objections some more. We understand we're not  
8 adding any new objections if you've already put your objections  
9 in pretrial on the exhibits or designations.

10 But in the responses that come in in ten days with the  
11 findings, if the party's putting in for the hearsay issue a  
12 document not for the truth under 801(c)(2), or for state of  
13 mind, for example, under 803, that you have to clearly say so  
14 when you respond to the objection so the Court has the whole  
15 package there at the time of the findings.

16 The reason I suggest that rather than waiting and  
17 sequencing this, if we're already going to have sequential  
18 findings and then briefing on evidence thereafter, inevitably  
19 it's going to keep delaying and delaying the ability for the  
20 Court to enter its order. And as we've said from day one, with  
21 the scheduling orders, we very much are hoping that the  
22 Court -- we put the Court in a position of being able to do its  
23 work as quickly as the Court can following the trial. But we  
24 would rather not see this drag on and on and on.

25 So we're ready, if we're putting in a document on a hearsay

1 exception, to say so right in our response, and you'll have  
2 that at the same time as the other findings and it should be  
3 relatively easy and straightforward to evaluate.

4 (Judges confer privately.)

5 JUDGE BLACK: We want to confer among ourselves  
6 outside your presence and come back with the reaction.

7 MR. FRAM: Okay.

8 JUDGE BLACK: So we'll try and do it during the break.  
9 We probably don't have to figure this out today, but after the  
10 break we may have a reaction.

11 MR. FRAM: All right. Well, thank you, Your Honor.

12 I believe that's all the evidence from the plaintiffs'  
13 case, both the witnesses, the deposition designations, the  
14 exhibits and the joint exhibits. So with that, Your Honor,  
15 plaintiffs rest.

16 JUDGE BLACK: Plaintiffs rest?

17 MS. LEVENSON: Plaintiffs rest.

18 JUDGE BLACK: Very well.

19 PLAINTIFFS REST

20 MR. STRACH: Good afternoon, Your Honor.

21 JUDGE BLACK: Good afternoon.

22 Good afternoon, Mr. Voigt.

23 MR. VOIGT: Good afternoon.

24 JUDGE BLACK: I didn't mean to overlook you. I missed  
25 you this morning as well.

1 MR. STRACH: One thing I wanted to -- before we put on  
2 our witness. While you are thinking about this timing issue,  
3 we would also like some guidance on whether five days includes  
4 weekends or not, so we can all schedule our time accordingly.

5 JUDGE BLACK: Do you acknowledge weekends in your  
6 life?

7 MR. STRACH: Not many.

8 JUDGE BLACK: Very well.

9 MR. FRAM: Not only that, Your Honor, we would join in  
10 the sentiment and we suggest we try to avoid a Monday filing  
11 deadline, particularly we're dealing with a lot of cite  
12 checking going on. We've all been around and we know what that  
13 means for certain individuals' weekends if it's a Monday  
14 deadline. So if it's at all possible with the Court's  
15 schedule, we would request a Tuesday filing deadline.

16 JUDGE BLACK: We will try and accommodate you.

17 MR. FRAM: Thank you.

18 JUDGE BLACK: Yes, sir, on behalf of the defendants?

19 MR. STRACH: Yes. May it please the Court, we do have  
20 a witness today, and we call Ray DiRossi.

21 JUDGE BLACK: Very well. If we can have Mr. DiRossi  
22 approach the witness stand.

23 Would you pause for the oath to tell the truth and raise  
24 your right hand. Do you solemnly swear or affirm that your  
25 testimony today will be the truth, subject to the penalty of



1 perjury?

2 THE WITNESS: I do.

3 JUDGE BLACK: Very well. You may be seated.

4 I've told everybody that seat tips back, so get a feel for  
5 it. And then we're going to need you close to the federal  
6 microphone.

7 Counsel, when you're ready you may proceed.

8 DEFENDANTS' EVIDENCE

9 MR. STRACH: All right. Thank you, Your Honor.

10 RAYMOND E. DiROSSI

11 a witness herein, having been first sworn, testified as follows:

12 DIRECT EXAMINATION

13 BY MR. STRACH:

14 Q. Good afternoon, Mr. DiRossi.

15 A. Good afternoon.

16 Q. Could you state your name for the Court, please.

17 A. Sure. Raymond Edward DiRossi.

18 Q. And can you spell your last name for court reporter?

19 A. D-, as in David, i-R-o-s-s-i.

20 Q. All right. Could you give the Court a sense of your  
21 background, your professional background.

22 A. Yes. So currently I am the finance director for the Ohio  
23 Senate. I started in the state legislature in 1991, and I was,  
24 at the time, studying finance and marketing at Ohio State  
25 University.

1       Got very involved in the budgetary process of the state,  
2       the state legislature, our budget, the number of budgets that  
3       we do, and kind of bounced around in different jobs. I was the  
4       finance director in the Ohio House for four years. I am  
5       currently, as I said, the finance director in the Senate. And  
6       I'm really focused on tax policy, economic development and the  
7       numerous state budgets that the state does.

8       Q. All right. And what's your current job, just to be clear.

9       A. Finance director for the Ohio Senate.

10      Q. All right. Are you familiar with redistricting in Ohio,  
11      congressional districts, in particular?

12      A. Yes.

13      Q. Did you have any role in congressional redistricting in  
14      2001, in the prior decade cycle?

15      A. I did, yes.

16      Q. Explain to the Court briefly what your role was, in  
17      general.

18      A. So at the time, you know, I think everybody would agree,  
19      redistricting is a very unique thing for the state of Ohio.  
20      The state of Ohio does not have traditional year-round staff  
21      that focus on that effort. So every decade that that comes up,  
22      when the actual process happens, it's somewhat a little bit of  
23      a shuffle to try to find the right people to do it.

24               So as early as 1998, when the process was coming up, there  
25      were really no staff from the previous decade from the '90

1 census that has been involved in that process. So I was asked  
2 to get involved, worked with the legislative task force on  
3 redistricting, understand how the Census Bureau was interacting  
4 with our boards of election, and just get up to speed on some  
5 of the litigation and lawsuits that are out there and get ready  
6 so that I could be part of the process in 2001.

7 Q. All right. And what was your role in the actual line  
8 drawing or map drawing in 2001, if any?

9 A. So, yeah, I was very involved in the creation of our  
10 legislative districts and also the congressional districts in  
11 2001.

12 Q. All right. And you mentioned something called the  
13 Legislative Task Force on Redistricting. Can you explain to  
14 the Court briefly what that is?

15 A. Yeah. So, as I said, it's a very unique process for the  
16 state of Ohio. And as early as, I think, after the 1990  
17 census, there wasn't a process in the state by which the state  
18 prepared for the coming census. So sometime in 1990 or '91, a  
19 statute was passed that created this entity, statutory entity,  
20 the Legislative Task Force on Redistricting and Demographic  
21 Research.

22 The statute requires that it has a committee membership and  
23 also requires that the chairs, the cochairs of the committee  
24 are able to take action on behalf of it. The statute also  
25 requires that they be bipartisan, they have to be one member

1 from each party. And that's a statutory requirement.

2 But it does all of the things leading up to the census. So  
3 when the legislature is doing its duty to draw congressional  
4 districts, or the Ohio Apportionment Board is doing its duty to  
5 draw legislative districts, the task force is the entity  
6 working behind the scenes to help them allocate money to the  
7 various caucuses, put the proper contracts in place, and  
8 basically prepare the state for that process.

9 Q. All right. Does the task force draw any districts?

10 A. It does not it.

11 Q. Does it adopt any districts?

12 A. It does not.

13 Q. So what exactly does it do before the map drawing begins?

14 A. So slipping my budget hat back on, so -- it is the entity  
15 to which the state legislature appropriates money. So  
16 immediately after a census and a process is put in place, it  
17 will start contracting with universities, traditionally, around  
18 the state, so that they can work with our 88 county boards of  
19 election to work with the census to make sure all of the things  
20 are in place for the next census.

21 And I know that was relatively easy for me to say in a  
22 sentence or two, but it's a very complex and intricate process  
23 that takes years to do, and to do right.

24 But the task force is the entity that does all of those  
25 things behind the scene. A couple -- a couple cycles ago we

1 bought -- the task force bought equipment, software, and we put  
2 them in the ten major metropolitan libraries around the state  
3 so that people could have access to the proper technology and  
4 software and data to be able to participate in the process.  
5 This time through, we didn't do that because technology had  
6 evolved. So that's what we do.

7 Q. All right. Does the task force do any funding for the  
8 legislative caucuses?

9 A. So, as I mentioned, the bipartisan cochairs of the task  
10 force are empowered to take action on behalf of the board. And  
11 back in the last -- this cycle and the last cycle and the cycle  
12 before in the '90s, it made allocations to the Republican  
13 caucuses and the Democratic caucuses in equal amounts so that  
14 they could do everything that the joint caucuses felt they  
15 needed to: Hiring staff, buying computer equipment, travel,  
16 mileage reimbursement, and those types of things.

17 Q. All right. So, in your experience, once the caucuses  
18 receive their funding from the task force, do the Democratic  
19 and Republican caucuses work together to draw maps?

20 A. Certainly they can, but, traditionally, the experience has  
21 been that each of the caucuses go off in their own direction.  
22 They hire whoever they feel they have to hire. They buy the  
23 equipment they feel they need to buy. They, you know, may hire  
24 experts to help them. And they will produce the maps. And  
25 then they will come back into the appropriate venue to actually

1 enact the districts.

2 Q. And is the appropriate venue the legislative process?

3 A. For a congressional redistricting, right, the state  
4 legislature enacts congressional districts as a bill, and it's  
5 a bill that has to be signed or vetoed by the governor.

6 Q. Okay. So the way it's worked in practice is the Democratic  
7 caucus goes off and draws their maps; right?

8 A. Yep.

9 Q. And then the Republican caucus goes off and draws their  
10 maps; is that right?

11 A. Right. And then they come back in the legislative process.  
12 One of them or both of them are turned into a bill that is --  
13 then goes through the traditional legislative process.

14 Q. Okay. When I use the term "political index," do you know  
15 what I'm talking about?

16 A. Well, I certainly have something that I think of, but I  
17 know that everybody hears that term and thinks of their own --  
18 their own thing.

19 Q. In 2001, when you were working on the congressional map,  
20 did you have a political index that you used?

21 A. Yeah. So in 2001, I had advocated for and we had created  
22 what was called in 2001 the unified index, which was simply  
23 just we took five races that had happened in the previous  
24 decade -- so in 2001, the decade before -- statewide  
25 non-judicial races that were relatively close and evenly

1 divided in the party who won. And we would, basically  
2 simplifying, weight that information down to get a snapshot of  
3 the historical election results that we could refer to always.

4 Q. And is that similar to what you use in the 2011 process?

5 A. It's actually exactly what I did in the 2011 process,  
6 except that, obviously, I used five races from the most recent  
7 decade and -- I used different races.

8 Q. All right. And do you remember what the outcome for the  
9 parties were in the congressional elections of the last decade,  
10 the decade of 2001, when you drew the maps?

11 A. Yeah, it was pretty volatile. So it ended being -- 13 to  
12 five was the party control at the end of the decade.

13 Q. All right. Do you remember what it was in 2008, before  
14 that result?

15 A. Yeah. It actually flipped control, and I think it was --  
16 well, it flipped control and the Democrats took control of the  
17 delegation. I think there were four or five seats that flipped  
18 hands.

19 Q. All right. During the 2001 process, did you communicate  
20 with any members of Congress about the maps, the congressional  
21 maps?

22 A. On occasion, rare occasion.

23 Q. All right. Did the members of Congress have any veto  
24 authority over what you did in 2001?

25 A. Well, probably every member of Congress thought that they

1 had veto authority, but in reality, none of them did. I mean,  
2 we were very interested -- I was very interested in the  
3 opinions of everybody. But, ultimately, my direct boss, the  
4 president of the Senate and also the Speaker of the House was  
5 Tom Niehaus and Bill Batchelder. They were the ones that were  
6 the principals. They were the ones responsible for getting a  
7 bill through the legislature and getting it enacted into law.

8 Q. All right. In the 2001 process, where did you physically  
9 draw the districts? Where were you physically located while  
10 you were doing this work?

11 A. Yeah. So back in 2001, I had been an employee in the  
12 General Assembly for about a decade. I started in 1991, as I  
13 mentioned. And, as I said, very unique process, and I -- I  
14 knew that the facilities that the state -- at the statehouse  
15 and the facilities at the Vern Riffe Center, which is where the  
16 House of Representative officers are, was very incompatible for  
17 what was going to be necessary for this process, so we took  
18 some time and looked for some type of offsite office space,  
19 which we ultimately found and used in the 2001 process.

20 Q. And where was that located?

21 A. It was at the DoubleTree Hotel.

22 Q. And did you have various names for what you called that  
23 office?

24 A. Yes.

25 Q. What were they?



1 A. Well, I called it -- the DoubleTree Hotel was probably the  
2 most one. We called it the hotel. We called it the  
3 redistricting office. We called it the office. We called it  
4 offsite.

5 Q. And did you ever call it "the bunker" in 2001?

6 A. I did.

7 Q. And why did you do that?

8 A. So it was really towards the end of the process, so a  
9 little bit of explanation. And I know we're talking about the  
10 congressional redistricting, but the legislative piece here is  
11 relevant.

12 The constitutional timelines for when the legislative map  
13 had to be adopted by the Ohio Apportionment Board required that  
14 by the end -- the first day of October of 2001, we had to have  
15 this map in place. And it was also my first time going through  
16 this process.

17 And, you know, without saying more, we all know what  
18 happened on September 11th of that day, 2001. And so I  
19 happened to be sitting in the DoubleTree Hotel that very  
20 morning when all of that was happening. And it was actually at  
21 that case that I referred to it as that, the bunker.

22 Q. All right. Did you have a role in the 2011 congressional  
23 redistricting?

24 A. I did.

25 Q. And what was your role this decade?

1 A. So for maybe the first time in a couple decades there was  
2 somebody on Capitol Square who had been through the previous  
3 decade: myself. So I ended up being very prominent in that  
4 role in 2011, both in the congressional and the legislative  
5 process.

6 Q. All right. And was this task force on redistricting, was  
7 it also in place this decade like it was the last decade?

8 A. It was doing all of the things to set the table, so to  
9 speak, so that the legislature and the apportionment board  
10 could go through their processes.

11 Q. All right. Did it operate any differently in 2011 than it  
12 did in 2001?

13 A. Bipartisan cochairs made allocations to the caucuses. I  
14 think the amount was a little bit higher the second decade  
15 through. Things were a little more expensive. But, basically,  
16 the process was the same.

17 Q. All right. Okay. So let me focus you on the 2011  
18 congressional map. I want to kind of start from a high level  
19 before we kind of walk through the specifics.

20 Were there any overarching, big issues that you were faced  
21 with in the drawing of that map?

22 A. Yeah. So the -- I mean, there's a few. I mean, obviously  
23 the state was losing two congressional districts. So that was  
24 something that was confronting us in how -- what was going to  
25 be our policy to address the loss of two congresspeople.

1 We also had a significant policy -- or significant shifts  
2 in population that had been happening throughout the decade.  
3 So we were looking to address those areas that had grown or  
4 areas that had contracted in population, some of which were  
5 very significant.

6 And we also -- was very aware from the previous process, I  
7 knew that in the congressional map there was one district in  
8 northeast Ohio, the 11th Congressional District, that was a  
9 majority-minority district, and so great care was being taken  
10 to look at that district and make sure that it was going to be  
11 created in a way that would be satisfactory.

12 There was also, in Franklin County, one of the areas that  
13 was seeing tremendous population growth, it was made clear from  
14 some of the principles that I talked about, the desire to make  
15 a new district in Franklin County that would have the ability  
16 to elect, for the first time ever, a second member of the  
17 minority -- minority to Congress.

18 Q. All right.

19 A. So those were kind of the big, overarching goals that we  
20 were looking at.

21 Q. All right. Did anyone from Washington, D.C. dictate to the  
22 legislature what those goals were?

23 A. Yeah, they didn't -- they didn't dictate, but everybody had  
24 opinions, obviously. And nobody was -- nobody was shy about  
25 expressing them, but nobody was able to dictate. We had to

1 get -- the leaders had to get a bill passed through the  
2 legislature. That was the ultimate issue.

3 Q. All right. After the election of 2010, what was the  
4 partisan makeup of the delation from Ohio?

5 A. In the congressional map after 2010?

6 Q. Yes.

7 A. It was 13 to five.

8 Q. All right. 13 Republicans?

9 A. Correct.

10 Q. And five Democrats?

11 A. Yes.

12 Q. So you mentioned that two incumbents would have to be  
13 eliminated because of the loss of two seats. What would the  
14 delegation look like after that was done?

15 A. Well, in -- you know, one thing that we kind of didn't  
16 catch a break on, we were, you know, hoping that maybe some of  
17 those congressmen wouldn't be running -- or congresswomen  
18 wouldn't be running for reelection. But all had indicated they  
19 would be running for reelection.

20 So we weren't able to just absorb the district that was  
21 going to be open. So the decision was made to pair two  
22 Republicans together and two Democrats together. So we would  
23 have ended up with 12 and four.

24 Q. Twelve Republicans and four Democrats?

25 A. That's correct. Sorry.

1 Q. All right. So if you were going to have 12 Republican  
2 incumbents and four Democratic incumbents, what approach, if  
3 any, did you take with those remaining incumbents in terms of  
4 drawing a map?

5 A. Well, we -- you know, on the Democratic side, that's where  
6 a lot of the focus was from the Democratic members of the  
7 legislature as well. You know, there were five, and one of  
8 them was the congresswoman that represented the 11th  
9 Congressional District, Congresswoman Fudge.

10 And nobody thought it was a good idea to pair anybody with  
11 her, being a district that was a majority-minority district.  
12 And so if you looked at the geographic distribution of where  
13 the other four Democratic members resided, a decision was  
14 quickly made of which two -- which two members of the  
15 Democratic party to pare down.

16 MR. FRAM: Your Honor, move to strike this last  
17 statement about the Democrats in the northeast, based on lack  
18 of foundation.

19 JUDGE BLACK: Objection's note.

20 Q. So, Mr. DiRossi, you know, you recall you were going to  
21 have 12 Republican and 4 Democratic incumbents. Was there any  
22 approach you took to deal with the remaining incumbents,  
23 Republican or Democratic?

24 A. After the two Republicans were paired and the two  
25 Democratic were paired?

1 Q. Yes.

2 A. Well, like I said, obviously, they all had their opinion.  
3 So drawing or creating a district where they would be happy  
4 helped with getting votes in the legislative process, because  
5 that's where we had to make sure that we had the votes to get a  
6 bill passed.

7 Q. All right. Were you trying to draw 12 just, quote,  
8 "Republican districts" in the map?

9 A. No.

10 Q. All right. Why not?

11 A. Well, I don't -- you're giving me a lot of credit, first of  
12 all, to think that I could do that. As we just talked about in  
13 the previous decade, the lines that I had worked on were really  
14 very volatile. Republicans controlled the delegation,  
15 Democrats controlled the delegation.

16 And that wasn't my charge anyway. That was to produce a  
17 map for the legislature to consider and enact. It wasn't to  
18 guarantee anything.

19 Q. All right. Let me focus you in on the final map that was  
20 enacted and actually implemented. Do you recall that being  
21 House Bill 369?

22 A. I do.

23 Q. All right. Which two Democrats ended up being paired in  
24 that final map?

25 A. It was Congresswoman Kaptur from the Toledo area, Lucas

1 County, and Congressman Dennis Kucinich from western Cuyahoga  
2 County.

3 Q. And can you tell me why those two were paired?

4 A. There was a lot of -- a lot of conversations that were  
5 happening, but it was very clear that the Democrats wanted  
6 Dennis Kucinich to be the one that was out.

7 MR. FRAM: Objection. Foundation. Hearsay.

8 JUDGE BLACK: Very well. The objection's lodged.

9 Q. And how did you know that?

10 A. I was getting feedback from a number of mechanisms, a  
11 number of people that were having conversations with the  
12 Democrats or with other party leaders.

13 Q. And who were those people?

14 MR. FRAM: Your Honor, I'll object, again. The  
15 witness keeps talking about, There were these conversations,  
16 something about, The Democrats thought. Move to strike. I can  
17 have a standing objection keeping in that direction so as not  
18 to disrupt the testifying. But he keeps testifying about these  
19 conversations existed out there about the Democrats.

20 JUDGE BLACK: It sounds like hearsay.

21 MR. FRAM: Well, hearsay, Your Honor.

22 MR. STRACH: It may be or may not be.

23 JUDGE BLACK: Yes.

24 (Judges confer privately.)

25 JUDGE BLACK: The objection has been lodged. It's

1 been noted. It will be addressed post-trial. If you want to  
2 do anything to change the circumstances of the objection,  
3 you're welcome to.

4 MR. STRACH: All right. Thank you, Your Honor.

5 Q. Who were those specific people that you were talking to  
6 that were giving you this feedback?

7 A. So I was talking to a number of people. I was talking to  
8 Bob Bennett, the former chairman of the Ohio Republican Party,  
9 who had been the chairman twice and had some incredible  
10 relationships with former Democratic chairs and also some of  
11 the county chairs and individual members. So he was an  
12 invaluable resource.

13 Q. All right. And did Bob Bennett then discuss these things  
14 with you personally?

15 A. Yes.

16 Q. And did Bob Bennett's conversations that he was relaying to  
17 you impact how you drew the lines?

18 A. Yes. And it was consistent with the feedback I was getting  
19 from other sources as well.

20 Q. All right. What did the -- did the pairing between  
21 Representative Kucinich and Representative Kaptur, did it  
22 change in any way over the course of the map-drawing process?

23 A. It did, significantly.

24 Q. In what way?

25 A. Well, in the original map, great care was taken to try to



1 make it -- I guess I'd use the term fair. But basically you  
2 had a congresswoman whom had a significant part of her district  
3 from the previous decade in the Toledo area in Lucas County,  
4 and Congressman Kucinich who had a significant population from  
5 western Cuyahoga County. And so we were trying to put about --  
6 make the district as close to 50 percent from both of their  
7 home areas as we could. And then the area in between it that  
8 they, neither of them, had ever represented, you know, was kind  
9 of neutral territory. So it was the same approach we took with  
10 the Republican pairing.

11 Q. And with respect to the Democratic pairing, is that how the  
12 final map ended up?

13 A. No, it was changed significantly in 369.

14 Q. In what way, in general?

15 A. Well, there were a lot of requests from the legislative  
16 Democrats and people around Congresswoman Kaptur --

17 MR. FRAM: Objection, Your Honor. Hearsay about  
18 requests from these other Democrats.

19 A. That --

20 JUDGE BLACK: Excuse me. We're going to lodge the  
21 objection and deal with it. Why is it not hearsay?

22 MR. STRACH: Well, Your Honor, likely a lot of this  
23 will be not used for the truth of the matter asserted but goes  
24 to intent, why the lines were drawn the way they were drawn.

25 JUDGE BLACK: Well, we look forward to the competing

1 objections. You may proceed.

2 MR. STRACH: Thank you, Your Honor.

3 Q. So let me go back to that question. How did the district  
4 itself, the one in which Representative Kucinich and  
5 Representative Kaptur were paired, how did that district itself  
6 change by the time the map was -- by the time 369 was enacted?

7 A. Yeah. So there were significant additional territory in  
8 Lucas County, a number of Toledo wards that were added to the  
9 district so that the population of Toledo would be increased.  
10 There were a significant number of wards of -- well, maybe not  
11 as significant, but a number of wards in Cleveland that were  
12 removed from the district so that there would be less  
13 population from the Cleveland area in the district. And then  
14 the connections in between were significantly reduced in their  
15 population, that kind of neutral territory, specifically in  
16 Lorain County where another district was brought up to be  
17 assigned that territory so that the balance could be shifted  
18 over to Congresswoman Kaptur's historic district.

19 Q. Okay. All right. And did you make this decision on your  
20 own to do this?

21 A. No, it was with all the feedback that I was getting from  
22 all those sources.

23 Q. All right. So did Bob Bennett give you any feedback that  
24 caused you to redraw the CD9 in that manner?

25 MR. FRAM: Objection. Hearsay.

1 JUDGE BLACK: Very well.

2 A. Yes.

3 Q. Okay. And with respect to Mr. Bennett, is he still alive  
4 today?

5 A. He is not.

6 Q. And when did he pass?

7 A. A few years ago.

8 Q. Did anyone else give you any information that caused you to  
9 change that congressional district in that manner?

10 A. Yeah, in conversations with President Niehaus, who was one  
11 of the two principals, I was getting feedback from -- from him  
12 that was consistent with what was being told to me by Bob  
13 Bennett.

14 MR. FRAM: Objection. Motion to strike. A statement  
15 about what was consistent or not as to the content. Hearsay.

16 JUDGE BLACK: Noted.

17 A. Also from Representative Batchelder, Speaker Batchelder, he  
18 was providing the same feedback that that was the intent in  
19 order to get additional votes from the Democrats and the  
20 Democratic delegation, those are the changes we have to make.

21 MR. FRAM: The same objection, the same motion to  
22 strike.

23 JUDGE BLACK: Very well. Noted.

24 MR. STRACH: We will certainly consent to a standing  
25 objection if that's appropriate.

1 MR. FRAM: We would be delighted if we could, I just  
2 don't know where the questions and answers are going. So I'm  
3 happy to minimize disruption, but the questions keep coming in  
4 different places on these statements by others.

5 JUDGE BLACK: Give me a minute.

6 White noise.

7 (Judges confer privately.)

8 JUDGE BLACK: The white noise off.

9 I thought I ordered something symphonic. We're still  
10 working on that.

11 Plaintiffs' counsel, if the defense elicits testimony that  
12 somebody outside of court said something other than the  
13 witness, the Court would grant you a standing objection to  
14 those. Does that help avoid the need to continue stating  
15 objections on a regular basis?

16 MR. FRAM: Yes, Your Honor.

17 JUDGE BLACK: It helps?

18 MR. FRAM: It does.

19 JUDGE BLACK: You have that standing objection.

20 MR. FRAM: Thank you, Your Honor.

21 JUDGE BLACK: Very well.

22 MR. STRACH: Thank you, Your Honor.

23 JUDGE BLACK: I think that was your idea.

24 MR. STRACH: That was my idea.

25 THE COURT: I hate to credit you.

1 MR. STRACH: Every now and again I have a good idea.

2 JUDGE BLACK: All right.

3 MR. STRACH: All right. Thank you, Your Honor.

4 Q. Mr. DiRossi, I'm going to put the final map -- we're going  
5 to display the final map, because I want to talk about some  
6 specific aspects of the map. And I think it will be helpful to  
7 you and the Court to actually see it.

8 MR. STRACH: So if we could put up Defendant's Exhibit  
9 1.

10 And, Your Honor, I think, just because I'm a little old  
11 school, I think it may also help to have a physical copy.

12 JUDGE BLACK: Okay.

13 MR. STRACH: So I'm going to hand a copy to counsel,  
14 the witness and the Court, if that's okay.

15 JUDGE BLACK: Very well.

16 MR. STRACH: And I am going to avoid --

17 JUDGE BLACK: You're familiar with what your deputies  
18 have been doing all week.

19 MR. STRACH: I do have a height advantage, though.  
20 That might be better.

21 Q. All right. Mr. DiRossi, you've got it on your paper, on  
22 the screen. Let's just focus in on Congressional District 9.  
23 Can you describe to the Court where that district is on this  
24 map?

25 A. Yeah. It's the district that starts in Lucas County in

1 Toledo and moves east and ends up on the west side of  
2 Cleveland.

3 Q. All right. And so you were describing how the district  
4 changed in the final House Bill 369. Now the Court's got this  
5 in front of them. Can you explain that again with reference to  
6 the map?

7 A. Sure. So, as you said, this is the -- this is the map that  
8 became law. But in the original map there was a significant  
9 population in Lorain County that was also part of the 9th  
10 Congressional District, which was removed to make the district  
11 lighter in population and need to grow. It picked up  
12 significant population in Lucas County, and it lost population  
13 in Cleveland.

14 And so, basically, where we had originally designed this to  
15 be kind of teeter-totter that was evenly balanced between  
16 Congresswoman Kaptur and Congressman Kucinich, the effect of  
17 the final map was really kind of tilting the teeter-totter to  
18 Toledo, so that there was much more Toledo in it and less --  
19 less Cleveland.

20 Q. And did that have a practical effect on the shape of the  
21 district?

22 A. It did. It made it a little more elongated, but it also  
23 made it a lot thinner.

24 Q. All right. Okay. We're going to keep this display and  
25 keep your map out for the next few questions. Did you receive

1 any feedback from Democrats regarding what should be done with  
2 Montgomery County in the final map?

3 A. Yes.

4 Q. First, tell the Court what you did, and then we'll talk  
5 about who told it to you.

6 A. Okay. So in the original map, Montgomery County was split.  
7 There was a significant portion of Montgomery County that was  
8 in the 10th District. And there was also the 8th District that  
9 came around through Miami County down into Huber Heights and  
10 Riverside area on the northeastern quadrant of Montgomery  
11 County.

12 The Democrats in the legislature said they wouldn't provide  
13 votes for the map unless Montgomery County was made whole. So  
14 what we did in this map was we made Montgomery County whole,  
15 which then required the district to be redrawn, because then it  
16 had too many people, obviously, since -- when we made  
17 Montgomery County whole.

18 Q. And making Montgomery County whole, what effect did that  
19 have on other districts or the map itself?

20 A. Yeah. So, obviously, it -- it had, in the previous map, if  
21 I can do this from memory, it had significant populations of  
22 Pickaway County, Fairfield County, and I think one other  
23 county, and those had to go away. So, then, those had to go  
24 into yet another district, which I believe ended up being the  
25 15th, as you see it here on the map.

1        So it kind of created these ripple effects. If we were  
2 moving just a few people, it really didn't matter, but in this  
3 case we were moving, you know, close to a hundred thousand  
4 people, if not more.

5 Q. Did this change to make Montgomery County whole have any  
6 effect on the Republicans who were paired?

7 A. Yes. So, as I mentioned, that kind of even teeter-totter  
8 approach that we used in the northern district, we also did  
9 that in this district where Congressman Turner, Republican from  
10 Dayton, and Congressman Austria, Republican, both incumbents,  
11 were paid paired.

12        The districts were pretty balanced where they would have to  
13 run in a primary and we'd all have to find out who won on  
14 Election Day, but the effect of this map was tilting that  
15 teeter-totter -- if you'll permit me to keep using that -- well  
16 towards Montgomery County. And the effect was that Congressman  
17 Steve Austria then decided not to run.

18 Q. All right. With regard to the change to the request to  
19 make Montgomery County whole, where did you learn -- who made  
20 that request?

21 A. Well, it was the legislative Democrats from Montgomery  
22 County.

23 Q. And who told you about that request?

24 A. I mean, I heard that from everybody, from Bob Bennett, I  
25 heard it from Tom Niehaus, I heard it from Bill Batchelder, and



1 I heard it from some of the other staff people.

2 Q. All right. And was the information that was relayed to you  
3 the reason why you made the changes to Montgomery County and  
4 the resulting changes?

5 A. Absolutely.

6 Q. All right. Let's focus now on District 11 in this map.  
7 Could you orient the Court to where District 11 is, CD11?

8 A. Oh, I'm sorry. I thought you were talking to him.

9 Oh, yeah, it's the northeast Ohio districts. It starts  
10 into Cuyahoga County and works down into Summit County.  
11 Apologize.

12 Q. Is this the district that had been historically a  
13 majority-minority district?

14 A. It is.

15 Q. Okay. And who was representing this district at this time?

16 A. It was Congresswoman Fudge.

17 Q. All right. What input from Democrats did you receive  
18 regarding Congressional District 11 during the map-drawing  
19 process?

20 A. So this is, as I mentioned when we were just getting ready  
21 to get started, this is one of the areas where I was very  
22 focused that this was the only district in the map that was a  
23 majority-minority district, and so I wanted to take great care  
24 to make sure the district was drawn the way that the incumbent  
25 wanted it.

1 And so I -- I remember preparing -- I did prepare two maps:  
2 One of these districts that was primarily drawn in Cuyahoga  
3 County, and another map that was basically the one before us  
4 that went down into Summit County. And they were submitted  
5 through a number of channels to get to Congresswoman Fudge for  
6 her review.

7 MR. FRAM: Objection, Your Honor, to separate from  
8 hearsay. There's a foundation question here about any contacts  
9 that the witness has ever had with Congressperson Fudge or any  
10 members of her staff.

11 So if there's -- there can be a standing objection on  
12 any -- any foundation as regards contacts with the Democrats,  
13 that could avoid the need for additional foundation objections  
14 and motions to strike.

15 JUDGE BLACK: Are you comfortable with that?

16 MR. STRACH: That would certainly be fine with us,  
17 Your Honor.

18 JUDGE BLACK: Very well. We'll proceed in that way.  
19 A standing objection as to foundation.

20 Q. So you just mentioned a minute ago you prepared, if I heard  
21 you correctly, you prepared two maps of Congressional District  
22 11, one entirely within Cuyahoga County and then one that went  
23 down to Summit; is that right?

24 A. That is correct.

25 Q. And why did you prepare those maps?

1 A. Well, the initial thought was to see if we could draw a  
2 district in Cuyahoga County that would be a majority-minority  
3 district, and we were up able to do that. And so we were  
4 trying to take great care to do -- to have a majority-minute  
5 district since it's historically, for decades, been that way,  
6 and the only way to do that was to bring the district south  
7 into Summit County.

8 And, as I mentioned, one of the things we wanted to do was  
9 make sure that the 11th District was drawn in a way that  
10 Congresswoman Fudge supported. And so the decision was made to  
11 put a couple of alternatives in front of her and have her give  
12 us some feedback.

13 Q. And who did you give those maps to?

14 A. I would have given those maps to Bob Bennett, I would have  
15 given them to Bill Batchelder, and I would have given them to  
16 Tom Niehaus.

17 Q. Did you, in fact, give them to those gentlemen?

18 A. I did.

19 Q. And what then came back to you as the result of that  
20 process?

21 A. What came back was that the district going down into Summit  
22 County was the preferred option.

23 Q. Who told you that?

24 A. I heard that from Bob Bennett, but it was confirmed by  
25 conversations with the other principals.

1 Q. With Speaker Batchelder and President Niehaus?

2 A. Yes.

3 Q. And did they tell you who they talked to to get that  
4 feedback?

5 A. I know -- by name I couldn't tell you the names, but I know  
6 Speaker Batchelder had a number of good friends in the  
7 African-American community in northeast Ohio that he was  
8 talking to.

9 Q. Okay. So when -- when these gentlemen came back to you and  
10 said Representative Fudge preferred the district that went into  
11 Summit County, obviously, you didn't know that as a fact;  
12 right?

13 A. I took their word for it.

14 Q. Right. And as a result of what they told you, did that  
15 then cause you to draw the district the way it was drawn in the  
16 final map?

17 A. Yes.

18 JUDGE WATSON: Mr. DiRossi, are you saying that  
19 Congresswoman Fudge is the person that okayed the map? Or are  
20 you saying that the preferred map from everybody that Mr.  
21 Bennett, Mr. Niehaus and the speaker spoke to preferred?

22 THE WITNESS: Your Honor, it was my understanding that  
23 the maps were going to make their way to Congresswoman Fudge.  
24 But, obviously, I was not present for that.

25 JUDGE WATSON: All right. Go ahead.

1 MR. STRACH: Right. Okay.

2 Q. And did Mr. Bennett or President Niehaus or Speaker  
3 Batchelder ever tell you -- give you any information about why  
4 Representative Fudge or any of the African-American community  
5 preferred the one district over the other?

6 A. I mean, it was mentioned that the district being retained  
7 as a majority-minority district was important. And also there  
8 was considerable concern of pairing Congresswoman Fudge with  
9 Dennis Kucinich, who was viewed as very formidable and saying  
10 he would run no matter who he was paired against.

11 MR. FRAM: Your Honor, objection on the term  
12 majority-minority. What does it define when he's talking about  
13 voting age population, registered voters and the like? So  
14 objection. Vague.

15 JUDGE BLACK: Objection's made.

16 MR. STRACH: May I?

17 JUDGE BLACK: You may continue or you may address it  
18 as you choose in terms of your questioning.

19 MR. STRACH: Thank you, Your Honor. We'll do that.

20 Q. Are you aware of -- when you say "majority-minority  
21 district," are you speaking of black voting age population or  
22 something different?

23 A. I'm referring to non-Hispanic black voting age population.

24 Q. All right. Thank you. Now, were you aware of and part of  
25 the -- let me do it this way.

1 After House Bill 319 was enacted, why -- why wasn't House  
2 Bill 319 ever implemented?

3 A. So House Bill 319 was passed with sufficient majorities in  
4 the legislature to become law, but under the Constitution, it  
5 had to wait 90 days for -- before it could go into effect to  
6 allow the voters to mount a referendum if they chose.

7 Q. So did that spur any action on your part or the part of the  
8 legislative Republicans with regard to the congressional map?

9 A. I mean, at the time of the passage of 319, no, we were  
10 shifting 100 percent to the apportionment process, which was  
11 the legislative redistricting, but then it became abundantly  
12 clear that there was an active petition drive and  
13 signature-gathering effort that, if successful, would cause the  
14 map to not go into effect. And then I'm not sure what would  
15 have happened with the timelines for running the next  
16 congressional races.

17 Q. All right. Did -- during this period when you said it was  
18 becoming clear that the signatures were being gathered, et  
19 cetera, did any negotiations take place between the state  
20 legislative Democrats and state legislative Republicans?

21 A. Yes. So at some point there was the decision that, okay,  
22 we're going to start working on yet a new -- a new map, which  
23 became House Bill 369. And the Republican legislative leaders  
24 and the Democratic legislative leaders were engaged in  
25 conversations of what changes have we made in order for you to

1 provide votes -- to provide votes to pass the second map.

2 Q. All right.

3 MR. FRAM: Your Honor, it's a separate and distinct  
4 foundation objection. This has to not do with conversation  
5 with the Democrats, but conversations with the Republicans.  
6 He's not laid a foundation that he's part of the negotiation  
7 process or who's talking to them about these decisions.

8 JUDGE BLACK: Very well.

9 MR. STRACH: That was my next question.

10 JUDGE BLACK: Go ahead.

11 Q. Sure. Mr. DiRossi, were you part of the negotiations on a  
12 staff level between legislative Democrats and legislative  
13 Republicans at that time?

14 A. I mean, any time that they wanted to -- either side wanted  
15 to see something visually or have numbers crunched, I was the  
16 one that was doing it, most likely, but I wasn't the one,  
17 physically, in the room negotiating it.

18 Q. Right. You were preparing maps to be used for proposals,  
19 et cetera?

20 A. Exactly.

21 Q. During this negotiating time period are you -- did you ever  
22 see any of the maps proposed by the Democrats in this time  
23 period?

24 A. No.

25 Q. Okay. Now let me focus you back on District 11. Focus you

1 back on the map here.

2 Were there any effects on other districts that were caused  
3 by drawing Congressional District 11 the way it's drawn in this  
4 map?

5 A. Yeah. So anybody who knows kind of what was happening in  
6 northeast Ohio, you've got a number of communities that were  
7 experiencing significant population loss. You've got the loss  
8 of two congressional districts which required the districts to  
9 grow by 80,000 people, maybe even more. And so by pairing or  
10 bringing the 11th District from Cuyahoga down into Summit  
11 County, really kind of split northeast Ohio with a significant  
12 population to the east and a significant population to the  
13 west. So that ripple effect, you kind of see it in how some of  
14 the other districts are curling around the 11th District.

15 MR. FRAM: Objection. Foundation. Lay opinion on  
16 demographic changes.

17 JUDGE BLACK: Very well.

18 MR. FRAM: Not established with -- unless this is  
19 offered for the truth.

20 Q. Mr. DiRossi, did you, in fact, draw this map?

21 A. Yes.

22 Q. Did the shape and location of Congressional District 11,  
23 from a map-drawing perspective, have any impact on any of the  
24 incumbents in that area of the state?

25 A. Yeah. In conjunction with the population shifts that were



1 happening, we had two -- two congresspeople who were living  
2 very close together who ended up being paired in the district  
3 as well, which was necessary because of the new District 3 that  
4 was being created in Franklin County.

5 Q. And did you recommend that pairing, from a map-drawing  
6 perspective, yourself?

7 A. I think a number of us came to that conclusion that because  
8 of the population shifts and the way that 11 was being put into  
9 the map, that that was going to be necessary.

10 Q. All right.

11 All right. Let's now focus on Congressional District 3,  
12 which is in Franklin County. Did you become aware of any input  
13 from Democrats regarding the shape and location of that  
14 district?

15 A. Yes.

16 Q. What was it?

17 A. So, as I said, one of -- kind of when you look at the map  
18 and it's blank, one of the things that was kind of an  
19 overarching goal of the map was to create a new district in  
20 Franklin County that might be able to elect a second member  
21 from the minority to Congress from Ohio for the first time  
22 ever.

23 And a number of people, including myself, who had worked  
24 with and in and around Joyce Beatty, who was not a  
25 congresswoman at the time, thought she would be an ideal

1 candidate for that. She had indicated -- both her and her  
2 husband Otto had indicated that they would be interested in  
3 running in that. So there was a lot of back and forth with  
4 them about creating the district there. And then ultimately it  
5 had to be changed to meet some of her requests in the final  
6 map.

7 Q. And you said there was back-and-forth. Who was the back  
8 and forth between?

9 A. The same people, although with Franklin County there were  
10 some other people involved. I was talking to Bob Bennett, my  
11 legislative leaders, but I know there were other people having  
12 conversations with her and Otto, her husband.

13 Q. All right. So you had --

14 MR. FRAM: Objection. Vague as to some people, same  
15 people and so forth.

16 JUDGE BLACK: Very well.

17 Q. So with respect to your conversations with Bob Bennett, did  
18 you receive information from Bob Bennett about drawing a  
19 district -- drawing this district for Joyce Beatty?

20 A. Yes, that she was interested in running, and, with some  
21 modifications, you know -- there were modifications to the map  
22 that she wanted to see.

23 Q. All right. And what, specifically, did Mr. Bennett tell  
24 you he knew about what she wanted in that district?

25 A. So there was considerable concern that Mary Jo Kilroy, who

1 was a -- I believe a former commissioner for Franklin County  
2 but had also been a member of Congress, would consider running  
3 against her for this district. And so they wanted to make sure  
4 that her residence was physically not in the district. And  
5 then Joyce Beatty, before she was Congresswoman Beatty, had  
6 worked for Ohio State University. And so the request was that  
7 she wanted the district to have certain property of Ohio State  
8 University in the district so she could represent her previous  
9 employer.

10 Q. And to be clear, was this information you were receiving  
11 from Mr. Bennett?

12 A. Yes.

13 Q. And was Mr. Bennett telling you he was receiving this  
14 information from Ms. Beatty?

15 A. In -- not exclusively, but I think conversations with her  
16 and also her husband Otto.

17 Q. Okay. Can you describe for the Court any impact drawing  
18 District 3 in this manner had on other districts and on the map  
19 itself?

20 A. Well, obviously, it's a new district of Franklin County.  
21 In the previous decade, the map that I helped produce, there  
22 were three districts as well, but none of them were completely  
23 contained within Franklin County like this one was. So that  
24 did create an outward pressure for the other districts, which  
25 kind of shows why the -- both the 12 District and the 15th

1 District become more sprawling districts than just traditional  
2 central Ohio districts.

3 Q. All right. And do you know this because you were the one  
4 drawing the map?

5 A. Yeah. Yes.

6 Q. Did you ever refer to this district's Congressional  
7 District 3 as a sinkhole?

8 A. No.

9 Q. Did you ever hear anyone in the state legislature, either a  
10 member or a staff member, refer to CD3 as a sinkhole?

11 A. Never.

12 Q. Did you ever refer to any group of voters as dog meat?

13 A. I'm sorry. As --

14 Q. Dog meat.

15 A. Dog -- no.

16 Q. Did you ever hear anyone do that?

17 A. No.

18 Q. Can you tell us what the vote was on HB 369?

19 A. Yeah. So just by way -- I know that's a very simple  
20 question, but for 369, there were two votes by the House and  
21 two votes by the Senate. And the reason for that is that the  
22 bill was passing as an emergency measure so that it would go  
23 into immediate effect. So we avoided that problem of the  
24 timelines for the election could be preserved and there could  
25 be adequate time for people to file their candidacy petitions

1 and all that.

2 So the House -- the House vote on the emergency clause was  
3 78 to 16. It was pretty lopsided. And the vote on the bill  
4 later, subsequent to that, was 77 to 17.

5 Q. All right. With regard to the emergency clause vote that  
6 was 78 to 16 in the House, do you know how the Democrats voted?

7 A. I believe that -- in the House, specifically, you're  
8 asking?

9 Q. Yes.

10 A. Yeah. I believe 22 of the 40 members of the Democratic  
11 party in the House voted for the emergency clause.

12 Q. And then the vote on the bill itself as an emergency, what  
13 was the Democratic vote on that?

14 A. Twenty-one of 40. A majority of them.

15 Q. All right. And then on the emergency clause, do you know  
16 what the vote was in the Senate?

17 A. Yeah. Even more lopsided. So it was 29 to four.

18 Q. All right. And do you know what the vote was in the Senate  
19 for the bill itself?

20 A. It was 27 to -- let's see. Twenty-nine to four and 27 to  
21 six.

22 Q. All right. And of the vote on the emergency clause in the  
23 Senate that was 29 to four, what was the Democratic vote?

24 A. You're testing my memory. I believe of the ten members of  
25 the Senate, there were Democrats, six of them voted for the

1 emergency clause.

2 Q. All right. And then how many -- of the ten Democrats, how  
3 many of them voted for the bill itself?

4 A. Four.

5 Q. Okay. All right. Let me focus your attention now on other  
6 issues. We're going to keep the map up because we're going to  
7 be looking at some counties, et cetera. But I want to focus on  
8 just other -- I'm just going to call them, quote, "political  
9 issues," and that's how I'll style this section of our  
10 discussion.

11 Were there any issues in Mercer County that affected how  
12 you drew any district?

13 A. Yes. So if you look at the final map, there's obviously  
14 three congressional districts that come together in Mercer  
15 County. There was a member of the legislature who resided in  
16 Mercer County. He was very passionate about where the district  
17 boundaries should be and what territory should be in which of  
18 those three congressional districts. So we spent a decent  
19 amount of time looking at that issue.

20 Q. All right. And are you familiar with a company called  
21 Timken?

22 A. I am.

23 Q. Was there any issue involving Timken that affected the map?

24 A. Yeah. There was a request very late to make sure that the  
25 Timken headquarters was included in, I believe, the 16th

1 Congressional District.

2 Q. All right. Were there any examples of requests like that  
3 from any other Republicans or Democrats?

4 A. Yeah. So we mentioned the request in the 3rd District  
5 about having Ohio State inside the district. There was also --  
6 I remember, specifically, dealing with the 9th District with  
7 Congresswoman Kaptur. There was a request to make sure -- or  
8 to change the district so that the NASA Glenn Research Center  
9 in Cleveland, I think it's the Brookpark facility, and also the  
10 Plum Brook Station in Erie County, which was kind of like their  
11 satellite research station, to make sure that both of those  
12 facilities would end up in the final version of the 9th  
13 District.

14 Q. And how did you learn of that request?

15 A. Through Mr. Bennett.

16 Q. Okay. And was that request the reason -- well, let me ask  
17 you this. Did those facilities end up being drawn into  
18 Representative Kaptur's district?

19 A. They both were, right. I think she was -- I think she was  
20 either on the Armed Services Committee or she was hoping to be  
21 on the Armed Services Committee, and I was being told that that  
22 would be very positive for her to represent those areas, and it  
23 would be good for us to have a high-ranking member representing  
24 those areas --

25 Q. And was this information you were being told by Mr. Bennett

1 the reason why you drew the district to include those  
2 facilities?

3 A. It is.

4 Q. Was there any issue with the city of Loveland?

5 A. Yeah. A little closer to where we are.

6 So at the time Congresswoman Schmidt lived in Loveland.

7 But Loveland splits both the Clermont County border and the

8 Hamilton County border, and she specifically lives in the

9 Clermont County piece of Loveland. And she wanted all of

10 Loveland to be in her district. So we had to go over the

11 border of Hamilton County and take the Hamilton County piece of

12 Loveland and put that in the 2nd District to accommodate that

13 request, which we also did.

14 Q. All right. And who did you get that request from?

15 A. I think that came from the folks in D.C.

16 Q. Okay. Which folks?

17 A. I think that was Tom Whatman.

18 Q. And is the -- and, in fact, did you make that change in the  
19 map?

20 A. That change was in the map, yes.

21 Q. And did you make that change because of the request relayed  
22 to you by Mr. Whatman?

23 A. Yeah. So I obviously had to a chat with the president of  
24 the Senate and Speaker Batchelder, but it was my recommendation  
25 that that was a fair request to make and is something that we



1 could easily accomplish. So we did it.

2 Q. All right. And just to be clear, at the end of the day, if  
3 you made a change, did you have to get it approved?

4 A. Yeah. I had to. I mean, I was constantly -- maybe not  
5 daily, but I was going back to Mr. Niehaus and the -- and  
6 Speaker Batchelder. I mean, they were the ones that ultimately  
7 they had to get the votes in the legislature. So while they  
8 were giving me great freedom to have these conversations and  
9 make changes, they ultimately had to be comfortable with it  
10 that they could produce a bill that would get their necessary  
11 votes.

12 Q. All right.

13 MR. STRACH: Let me ask if we can pull up Intervenors'  
14 Exhibit 72. And if we can go to page two.

15 Q. Mr. DiRossi, if you can look on the screen, we've got an  
16 exhibit that's going to have a series of maps regarding each of  
17 the districts. And it represents that -- it shows the changes  
18 from HB 319 to HB 369 for each district.

19 Let me ask you this to begin with. Are you familiar with  
20 the districts as they were contained in House Bill 319?

21 A. Yes.

22 Q. And are you familiar with the districts as they were  
23 contained in House Bill 369?

24 A. I am, yes.

25 Q. And are you aware of the changes that occurred between the

1 two?

2 A. I am.

3 Q. All right. Let's focus on a few of these, and we're going  
4 to start with Congressional District 1.

5 From your -- based on the information in your -- that  
6 you're aware of based on your role in drawing this map, why was  
7 Congressional District 1 drawn the way it was drawn?

8 A. Yeah. So the first thing I'd point out is a little bit of  
9 history. So in the previous decade, in '01, where I was  
10 extremely involved in that process, the district was a  
11 significant portion of Hamilton County. But it also included  
12 four townships in the southwestern part of Butler County. So  
13 at the end of the day, it had part of Butler County and part of  
14 Hamilton County in the district.

15 The intention this time was to try to have one whole county  
16 in the district somehow. And I know I played around with the  
17 math that you couldn't draw the district entirely in Hamilton  
18 County because the population of the county was too large to  
19 contain just one district. So by putting all of Warren County  
20 in the district and then providing the rest of the district  
21 down to zero population with Hamilton County, that's what we  
22 were able to do.

23 Q. All right. And can you -- the decision to include Warren  
24 County in this district, based on what you've testified, did  
25 that impact the shape of the district in Hamilton County?

1 A. Yes. Because in order to have most of the west side and  
2 Cincinnati in the district, but also connect to Warren  
3 County -- sorry, I'm not speaking into the microphone -- you  
4 had to come across the northern area of places like Evendale  
5 and some of the other Springfield Township northern places to  
6 connect them, and it had to, obviously, be contiguous.

7 Q. Okay. All right. And just for the Court's information,  
8 the legend on this map -- and it will be on every map -- if  
9 there's an area shaded in red, that was dropped from 319 to  
10 369. If it's in green, it was added from 319 to 369. And, of  
11 course, if it's in yellow, it was common to both maps. So, for  
12 instance, Mr. DiRossi on this map, do you recognize the area  
13 shaded in red as an area that was dropped from 319 and 369?

14 A. Yes.

15 Q. And do you recognize the area shaded in green as an area  
16 that was added to 369?

17 A. Yes.

18 Q. Okay. All right. Let's look at the next page,  
19 Congressional District 2. Mr. DiRossi, does this page of the  
20 exhibit look like a fair rendering of the changes from HB 319  
21 to HB 369 in Congressional District 2?

22 A. Yes.

23 Q. And based on your knowledge and role in the map drawing of  
24 this map, can you explain to the Court why these changes were  
25 made?

1 A. So not so much of what you see on the screen, but just to  
2 the north of this is the string of counties: Montgomery,  
3 Greene, Fayette, Pickaway, Hocking, that line. And as I  
4 mentioned before, there was a request from the legislative  
5 Democrats to make Montgomery County whole. And, obviously,  
6 that included -- or caused a lot of population to move westward  
7 in that district. So it -- some of these areas then had to be  
8 assigned to other districts. So this is kind of a ripple  
9 effect in that change.

10 Q. All right. All right. And let's look at Congressional  
11 District 3, the next page.

12 Mr. DiRossi, does this image appear to be an accurate  
13 rendering of the changes to Congressional District 3 from House  
14 Bill 319 to House Bill 369?

15 A. Yeah. Obviously, a lot more change is going on here than  
16 in some of the previous maps, but yes, it does. It is.

17 Q. All right. And can you explain why these various -- in  
18 general, these changes -- you've got a lot of green areas that  
19 were added, you've got some red areas that were dropped. Based  
20 on your knowledge and participation in the map-drawing process,  
21 do you know why those changes were made?

22 A. Yeah. These were the ongoing conversations with then --  
23 then non-Congresswoman Joyce Beatty about what her preferences  
24 would be. And I would just point out that anybody who knows  
25 the geography of the state, we happen to be looking at the

1 poster child of some of the worst geography in the state. And  
2 so Franklin County looks a little bad to the eyes, but that is  
3 because of the geography, because of just decades of annexation  
4 policy, you have townships and township fragments scattered  
5 throughout this county. You see it a little bit in Hamilton  
6 County. Cuyahoga County is pristine, but that's -- that's  
7 what's going on here.

8 Q. And when you say the "geography," give the Court a little  
9 bit of an idea of what you mean by "geography."

10 A. Yeah. So when I was working on the maps, you're looking at  
11 the layers of the geography in the state. You're obviously  
12 looking at counties and then political subdivisions, whether  
13 it's a city or a township, and then the wards thereof, the  
14 precincts thereof. And then for congressional, you're down  
15 into the census blocks. They try to balance out to zero  
16 population.

17 But in a lot of those major urban areas like Cuyahoga, for  
18 example, every township -- and there's only a small handful,  
19 but all of the cities have borders that just don't overlap  
20 others. In Hamilton County, you start to see some of the  
21 townships that are fragmented and have non-contiguous pieces,  
22 but in Franklin County it's just awful.

23 I believe the example that I used in a previous deposition  
24 was that Franklin Township in Franklin County itself is in over  
25 30 pieces that are just non-contiguous pieces of just where the

1 city of Columbus has not annexed it. So when you're drawing  
2 these and you're trying to -- you almost would have to try to  
3 assemble Humpty Dumpty back together again after it's been just  
4 shattered.

5 Q. All right. And let's look at Congressional District 4, the  
6 next page. Mr. DiRossi, does this appear to be an accurate and  
7 fair rendering of the changes to Congressional District 4 from  
8 House Bill 319 to HB 369?

9 A. Yes. Yes, it does.

10 Q. All right. And can you explain to the Court, in general,  
11 the reasons for the green being added and the red being taken  
12 away?

13 A. Yes. So my objective in drawing this district was I had to  
14 get another district up towards Lake Erie in order to make the  
15 9th District tilt more to Toledo. And so you can see the 4th  
16 District is dropping a significant portion of population in  
17 Clark County, it's dropping a smaller population in Hardin  
18 County, Wyandot County, Huron County, and also in Toledo. And  
19 that's bringing that up to go up into Lorain County so it can  
20 still balance, but also then allows the 9th District to shift  
21 more over towards Toledo, which was a previous objective of  
22 mine that I talked about. So significant changes here.

23 Q. All right. Let's go to CD5, the next page.

24 Mr. DiRossi, does this appear to be a fair rendering, an  
25 accurate rendering of the changes to CD5 from House Bill 319 to

1 House Bill 369?

2 A. Yes.

3 Q. And can you explain, from a general perspective based on  
4 your knowledge and participation in the map-drawing process,  
5 what these changes are?

6 A. Yeah. Another piece of the puzzle in order to -- back to  
7 the 4th and the 5th District out of Lucas County a little bit  
8 so the 9th could have more of Lucas County. And then,  
9 obviously, you see the green areas where then it had to add  
10 population in order to balance. So this is another offshoot of  
11 what happened from the negotiations to get the votes on 369.

12 Q. All right. Let's look at CD6, the next page. Mr. DiRossi,  
13 does this appear to be a fair and accurate rendering of the  
14 changes, if any, to Congressional District 6 between House Bill  
15 319 and House Bill 369?

16 A. It does in that there are no changes or maybe there is --  
17 there is a possibility at Muskingum County there was literally  
18 one person added to the district because of the -- having to  
19 balance the districts to the person that just doesn't show up  
20 here because it's so small.

21 Q. All right. You're referencing the zero deviation  
22 requirement.

23 A. I am.

24 Q. All right. Let's look at Congressional District 7, the  
25 next page. Mr. DiRossi, does this appear to be a fair and

1 accurate rendering of the changes to Congressional District 7  
2 between House Bill 319 and House Bill 369?

3 A. It does.

4 Q. And based on your knowledge of the -- and personal  
5 knowledge and participation in the process, can you explain  
6 what these changes were from?

7 A. So, yeah, we've -- so this is the other end of the  
8 spectrum, on the eastern side of the 9th District. Obviously,  
9 this district, District 7, had to back out of Lorain County so  
10 the 4th District could come up and take that population. So  
11 most of the district all the way from Stark County up towards  
12 the lake was unchanged, but those were the changes that were  
13 being done to free up population to change the 9th.

14 Q. All right. Then let's skip a page and go to -- and go to  
15 Congressional District 8.

16 Mr. DiRossi, does this appear to be a fair and accurate  
17 rendering of the changes to Congressional District 8 from House  
18 Bill 319 to House Bill 369?

19 A. Yeah, exactly. So when we had to make Montgomery County  
20 whole, this was the 8th District that to be backed out of  
21 Montgomery County so that it could be made whole in the 10th.  
22 So that's the big red chunk of population in northeast  
23 Montgomery County.

24 And then, obviously, the district then was light and needed  
25 to add population. And so we were able to make Clark County



1 whole, which was something we weren't able to do in the first  
2 map.

3 Q. Okay. Let's look at Congressional District 9.

4 Mr. DiRossi, does this appear to be a fair and accurate  
5 rendering of the changes to Congressional District 9 between  
6 House Bill 319 and House Bill 369?

7 A. Yeah, it's really -- yes, it is.

8 Q. All right. And I believe you've explained these changes,  
9 but could you just explain to the Court, based on your personal  
10 knowledge and participation in the map-drawing process, what  
11 the red and the green represent here?

12 A. Yeah. So this is really a good summary of all of those  
13 districts we just talked about, the 4th, the 5th, and the one  
14 that started in Stark County that we just talked about. You've  
15 got the district adding population in Lucas County, green; and  
16 you've got the district losing population in Cuyahoga County,  
17 red; and also losing population in the connections between them  
18 so that it could, as I said, the teeter-totter could be tilted  
19 towards Lucas County.

20 Q. Well, all right. All right.

21 MR. STRACH: Can we skip one page and go to Inset B,  
22 please.

23 Q. Mr. DiRossi, does this -- does it appear to be part of the  
24 District 9 that we were just looking at, just blown up a little  
25 bit?

1 A. Yeah, this looks like a zoom-in on that previous map, yes.

2 Q. All right. There's been some testimony about a particular  
3 township in this case called Florence Township. Do you see  
4 Florence Township on this part of the map?

5 A. Thank you. Yes, I do.

6 Q. Okay. To your knowledge, based on your personal knowledge  
7 and participation and drawing these districts, was Florence  
8 county -- was Florence Township split in any way?

9 A. Not intentionally, no.

10 Q. But was it split?

11 A. I didn't split it. This would have been an easy assignment  
12 that, again, with the layers that I chose, I would have taken  
13 the township boundary and I would have assigned it to the 4th  
14 District in its entirety. So that was my intention.

15 Q. And is that what you did?

16 A. Yes, that's exactly what I did.

17 Q. All right. Let's skip one page and go to District 10.

18 Mr. DiRossi, does this appear to be a fair and accurate  
19 rendering of the changes to District 10 from House Bill 319 to  
20 House Bill 369?

21 A. Yes. Yes.

22 Q. And based on your personal knowledge and participation in  
23 the map-drawing process, can you explain what changes were  
24 being made here?

25 A. Again, Montgomery County being made whole caused a

1 significant spike in population in the district. And so we  
2 started over on the east side and just got rid of territory  
3 until we could balance out the district somewhere in Fayette  
4 County where we had to go down to the census blocks and balance  
5 it out.

6 Q. All right. Let's go to the next page, Congressional  
7 District 11. Does this appear to be a fair and accurate  
8 rendering of the changes, if any, to Congressional District 11  
9 from House Bill 319 to House Bill 369?

10 A. Yeah. Throughout -- throughout this process of 319 and  
11 369, there were a lot of requests that were coming to us from  
12 the legislative Democrats. There were none for Congressional  
13 District 11, so there are no changes. I think we got it right  
14 the first time.

15 Q. All right. Were you aware of any amendments that were  
16 proposed in the legislative process to change District 11?

17 A. I -- I think there -- there was an amendment proposed on  
18 the floor of the Senate, but I do not believe that it was  
19 specific to 11. I think it made a number of changes.

20 Q. All right.

21 A. But there were none that were presented to me throughout  
22 the process to consider to change 11.

23 Q. All right. Let's look at the next one, CD12. Does this  
24 appear to be a fair and accurate rendering of the changes to  
25 Congressional District 12 from House Bill 319 to House Bill

1 369?

2 A. Yes.

3 Q. All right. And could you explain to the Court what the red  
4 and the green represent on this slide?

5 A. So, obviously, the changes in Franklin County were changes  
6 that were all population neutral that were being made because  
7 of the changes that had been requested on the 3rd Congressional  
8 District. But I know it's far away from Lake Erie, but this is  
9 where you see the ripple effect come all the way down into  
10 southeastern Ohio.

11 In order for the 4th District to get up into Lorain County,  
12 one of the places that had to lose population was in Marion,  
13 and -- Marion County. And so, obviously, the district then  
14 needed to add population. And so we added population in  
15 Muskingum County to balance it out. Even though it's, you  
16 know, a hundred miles away, that's the ripple effect through  
17 the map when you make one of those significant populations  
18 changes.

19 Q. All right. And let's skip one page and go to Congressional  
20 District 13. Does this appear to be a fair and accurate  
21 rendering of the changes to, if any -- to Congressional  
22 District 13 between House Bill 319 and House Bill 369?

23 A. It does, yes --

24 Q. All right.

25 A. -- in that there are none.

1 Q. Okay. No changes.

2 And let's look at Congressional District 14. Does this  
3 appear to be a fair and accurate rendering of the changes, if  
4 any, to Congressional District 14 between House Bill 319 and  
5 House Bill 369?

6 A. Yes. And, again, because the 11th District wasn't changing  
7 in this process, these are two districts immediately to the  
8 east of that. So when 11 didn't change, there was no reason  
9 and no request from the Democrats to change these districts, so  
10 they did not change.

11 Q. All right. Let's look at Congressional District 15, the  
12 next page. Is this a fair and accurate rendering of the  
13 changes to the Congressional District 15 between House Bill 319  
14 and House Bill 369?

15 A. Yes.

16 Q. And what's going on here with the red and the green?

17 A. Yeah, so you've got -- you've got kind of -- again, it's  
18 the changes to the 10th District in Montgomery, Greene and  
19 Fayette County that are causing a lot of this significant  
20 contraction and compactness of this district. And then also  
21 you have the changes that were happening in the 3rd, but those  
22 were pretty localized to Franklin County.

23 Q. All right. And then, finally, let's skip one and look at  
24 Congressional District 16. Does this appear to be a fair and  
25 accurate rendering of the changes to Congressional District 16

1 that were made between House Bill 319 and House Bill 369?

2 A. Yes.

3 Q. And can you explain these changes?

4 A. Yeah. Not -- not significant, but we were adding a  
5 little -- we were helping out the problem in the 9th a little  
6 bit with the changes up in northeastern Ohio by adding some of  
7 the green territory to the northern part of the 16th that was,  
8 you know, able to effectuate the change in the 9th that we  
9 wanted to see. And then just the red, kind of, was just  
10 balancing out the rest of that.

11 MR. FRAM: All right. Your Honor, at this time we  
12 would move the admission of Intervenor's Exhibit 72.

13 JUDGE BLACK: Any objection?

14 MR. FRAM: Your Honor, we're going to put in our  
15 objections post-trial after we evaluate what the foundation --  
16 his testimony is consistent with his recollection about the  
17 changes. That's his testimony. But for the actual creation of  
18 the exhibit, we'd like to see more of a foundation, because the  
19 witness did not create these maps.

20 JUDGE BLACK: It's admitted conditionally.

21 (Intervenor's Exhibit 72 was conditionally admitted.)

22 Q. Mr. DiRossi --

23 MR. FRAM: We can take this one off the screen.

24 Q. -- you mentioned earlier the unified index that you  
25 created. Do you remember that?

1 A. I do.

2 Q. Why did -- why did you create the unified index and what  
3 did you use it for?

4 A. So as I mentioned, I had created a unified index in the  
5 previous decade, but the thing that I found fascinating was,  
6 after the maps were rolling out, we were just inundated with  
7 requests from everybody -- members of the media, members of the  
8 press, Republican members of the legislature, Democratic  
9 members of the legislature, congressional members -- everybody  
10 was asking for indexes. And so I took great care in trying to  
11 be a little bit more prepared this decade through to prepare  
12 those documents in a concise way so when I inevitably would be  
13 asked questions about it, I didn't have to fumble around. I  
14 had some sheets that kind of had all -- could answer those  
15 questions.

16 Q. And did you have the unified index in the Maptitude  
17 software -- let me establish that.

18 Did you use Maptitude as the software for drawing the map?

19 A. In this most recent decade, yes, that's what we used.

20 Q. And was the unified index included in that Maptitude  
21 software as you were drawing districts?

22 A. Yes, it was.

23 Q. All right. Was there any other information that was in the  
24 software that you could look at in the process?

25 A. Yeah. So maybe just describe how I set up my computer.

1 Q. Yes.

2 A. I had two -- two big screens, and on the left screen I had  
3 all of my data. And so I had the population of each of the 16  
4 districts for the congressional piece, obviously, deviation  
5 from population, the African-American voting age population,  
6 the non-Hispanic voting age population, the Hispanic voting age  
7 population. And then I also had the unified index. And then I  
8 also had a number of other pieces of -- because everybody was  
9 saying, Well, your index is not what I want to know. I want to  
10 know this. So I had some other ones as well on there. And  
11 that was all on my left screen.

12 And then on the right was all the geography. So whenever I  
13 would make a change on the right screen, all of that would  
14 automatically change, you know, by itself.

15 Q. Okay. And were there other political indexes out there at  
16 this time that you were aware of?

17 A. Yeah. So a lot of people -- again, we're dealing with  
18 federal districts for congressional districts, unlike the  
19 legislative districts. So a lot of people were saying, You  
20 can't use your unified index. You've got to look at just the  
21 presidential results. Pull up -- presidential results are the  
22 indexes you should be looking at. So that was one big camp  
23 that said those were the indexes to use. I chose to use the  
24 unified index.

25 Then there was the folks with either the -- the D.C. folks,



1 Republican or Democrat, who had their own system. I don't know  
2 how to calculate it, but I refer to it as the D+1, D+2, R+1,  
3 R+2 system, which I never figured out how to get that into my  
4 software. So that's something that I always had to get from  
5 other people. I could never calculate that on my own.

6 And then there were still other people, Jim Slagle with the  
7 Ohio Campaign for Accountable Redistricting. I talked to him a  
8 number of times throughout the process. He had his own  
9 methodology of races that he wanted to look at. And the list  
10 goes on and on. Everybody had their own opinion about this and  
11 it just seemed that nobody really cared what mine was.

12 Q. Were there different notions in your experience in the 2011  
13 map-drawing process that -- did people disagree about what a  
14 competitive district was?

15 A. Absolutely.

16 Q. And what were some of the different views on that?

17 A. Yeah, so some people said, If it's anything more than 50  
18 percent, depending on if you're looking at it from a Republican  
19 or Democratic perspective, if it's 50 plus one or 49.99, that  
20 makes it lean one way.

21 For other people there were plus or minus two percent up or  
22 down. Plus or minus two and a half percent was one, and I  
23 think the Ohio Campaign for Accountable Redistricting even went  
24 as far as plus or minus five percent.

25 Q. All right. There's been some testimony in this case about

1 the certain splitting that occurred in the map. So let me ask  
2 you this just from the outset. Mr. DiRossi, what units of  
3 geography did you use -- were on your screen when you were  
4 drawing the map that became House Bill 369?

5 A. Yeah. And apologies for kind of sometimes referring to the  
6 legislative thing, but I was doing these things simultaneously,  
7 and so it's kind of all together. But for the legislative  
8 side, that is a constitutional requirement that you use -- you  
9 build districts with counties, political subdivisions, wards,  
10 precincts thereof. And so that is the unit that I had my  
11 system set up for.

12 I was able to add, for the congressional piece, census  
13 blocks, and that was the lowest level of geography. And I used  
14 that primarily when I had to achieve zero population deviation.

15 Q. All right. Did you use census tracts at all?

16 A. I did not.

17 Q. Were neighborhoods any unit of geography in your software  
18 or on your computer?

19 A. They may be something that are in the Unified Redistricting  
20 Database, but I was using political subdivisions, townships and  
21 cities, precincts and wards. That's what I was using.

22 MR. STRACH: All right. Well, let's display P524.  
23 It's the Niven report.

24 JUDGE BLACK: You'll tell me when you get to a smooth  
25 breaking point.

1 MR. STRACH: This is -- I've got maybe two questions  
2 left.

3 JUDGE BLACK: That's smooth.

4 Q. Let's look at page 27 of Dr. Niven's report. Do you see  
5 that on your screen, Mr. DiRossi?

6 A. I do.

7 Q. This was just a line that Dr. Niven -- referred to by many.  
8 Do you know why this line was drawn the way it was?

9 A. So I'm trying to get oriented. This is in the 3rd  
10 Congressional District, it says?

11 Q. Yes.

12 A. I mean, no. I mean, do we -- I don't know if this is a  
13 census block or if this is a precinct. As I mentioned before,  
14 the geography in Franklin County is some of the worst geography  
15 that I'm aware of. So I just don't know what level or layer  
16 this is.

17 Q. How did you comply with the equipopulation requirement?

18 A. So it's -- maybe, again, I get to put my budget hat on. It  
19 became just math. It was a numbers game. I mean, you would  
20 construct these districts at the larger geographical units:  
21 Counties, political subdivisions, you know, down maybe to  
22 precincts. And then if you were still thousands of people away  
23 from the target population, I would stay at that level. But if  
24 you found yourself 150 people short, you would be able to look  
25 at the census blocks. And it just became, literally, a math

1 game of, Okay, I need to trade 23 people here for seven here,  
2 because that gets me closer to the target. And you literally  
3 just keep doing that until you achieve zero population  
4 deviation.

5 It is a mind numbingly, time-consuming process. And, as I  
6 said, when you make one change in one district, it then has to  
7 ripple all the way through. And so it sounds easy, but it's  
8 very, very difficult.

9 MR. STRACH: All right. Thank you.

10 Your Honor, we've got no further questions for now.

11 JUDGE BLACK: Very well. We're going to take a little  
12 longer break today because we need to confer. We will be back  
13 at 3:25. We're in recess until that time.

14 COURTROOM DEPUTY: All rise. Court is in recess until  
15 3:25.

16 (Witness temporarily excused.)

17 (Recess taken: 2:58 PM - 3:26 PM.)

18 JUDGE BLACK: Please be seated. Thank you. The  
19 witness may retake the witness stand.

20 But I need to talk to the lawyers briefly. We've  
21 conferred, and what we need to see is where you are on  
22 objections. We've got some spreadsheet that lays them all out  
23 that I don't think has been filed by either side.

24 Can you file those immediately? We'll look at them this  
25 weekend, and then we'll come back with a plan.

1 Is that acceptable to the plaintiff?

2 MR. FRAM: Yes, Your Honor.

3 JUDGE BLACK: And the defense?

4 MR. STRACH: Yes, Your Honor.

5 JUDGE BLACK: And the intervenor?

6 MR. LEWIS: Yes, Your Honor.

7 JUDGE BLACK: We thought the intervenors' suggestion  
8 was helpful. It pains me to say that.

9 MR. LEWIS: Thank you, Your Honor.

10 JUDGE BLACK: All right. Are we ready to proceed?

11 MR. FRAM: Yes, Your Honor.

12 JUDGE BLACK: Okay. Are we continuing direct?

13 MR. STRACH: No, Your Honor. I'm done with direct.

14 JUDGE BLACK: Magnificent.

15 Cross-examination?

16 You're still under oath. You understand?

17 THE WITNESS: (Nods head up and down.)

18 JUDGE BLACK: You know what cross-examination is?

19 THE WITNESS: I'm about to find out.

20 JUDGE BLACK: Brace yourself.

21 THE WITNESS: I will. Thank you.

22 JUDGE BLACK: Very well.

23 Proceed when you're ready, sir.

24 CROSS-EXAMINATION

25

1 BY MR. FRAM:

2 Q. Good afternoon, Mr. DiRossi.

3 A. Good afternoon.

4 Q. I think I was one of the folks in attendance at your  
5 deposition.

6 A. I recall.

7 Q. Mr. DiRossi, 1994 until 1995 you worked for members of the  
8 Republican caucus in the Ohio Senate; is that right?

9 A. In 1994, I had taken a leave of absence from the Senate and  
10 I came back in 1995. So for '94, that's a little distinction.

11 Q. Okay. I gave you an extra year of job credit. So '95 to  
12 2005, you were working for Republicans in the Senate; is that  
13 right?

14 A. I worked for a Republican state senator from the Dayton  
15 area, yes, for a number of those years, and then a staff person  
16 in the caucus.

17 Q. Okay. And 2005 to 2008, you worked for Speaker of the  
18 House Mr. Husted; is that right?

19 A. Husted, yes.

20 Q. Husted, I'm sorry.

21 A. That is correct.

22 Q. I apologize. And you said you did some work in 2001 on  
23 redistricting. In that year the Republicans had control of the  
24 General Assembly; is that right?

25 A. Yes.

1 Q. And the governorship?

2 A. Yes.

3 Q. And in 2008, you started a business called Capital  
4 Advantage; is that right?

5 A. That is true.

6 Q. And through Capital Advantage or as Capital Advantage you  
7 were hired as a fundraiser for the Ohio Republican Senate  
8 Campaign Committee?

9 A. I was.

10 Q. And that committee, that runs elections dealing with  
11 Republican Senate candidates and, specifically, raises money  
12 for Republican State Senate campaigns; is that right?

13 A. Well, the campaign does the elections. I was the  
14 contractor for the money-raising side. So kind of  
15 differentiation of roles. I wasn't involved in the other side.

16 Q. But you were a fundraiser for the Ohio Republican State  
17 Senate.

18 A. I was. I am not anymore.

19 Q. Right. But in that period you were. Okay.

20 Now, in 2011, you entered into a contract with the  
21 Republican members of -- the Republican members of the  
22 legislative task force; is that right?

23 A. Yes.

24 Q. And that contract was effective around August 1; is that  
25 right?

1 A. I do not recall the specific date, but that sounds close.

2 MR. FRAM: And maybe we could put Plaintiffs' Exhibit  
3 102 up on the screen.

4 Q. Take a quick look at the beginning. Does that look like  
5 your consulting agreement? I don't mean to deny you the  
6 opportunity to look at the whole thing.

7 A. I was going to ask if my signature was on it.

8 MR. FRAM: Sure. Let's go to the signature block.

9 Q. See you're the third signature there. Is that your  
10 signature?

11 A. Yes.

12 Q. And that was signed by Mr. Matthew T. Schuler; is that  
13 right?

14 A. Yes. So, as I spoke of before, the legislative task force  
15 authorized money for the Republican joint caucuses and the  
16 Democratic joint caucuses to hire consultants, equipment and  
17 other things necessary to perform the functions of  
18 redistricting. And then this contract was one of the  
19 expenditures from the Republican side, yes.

20 Q. So Mr. Schuler, he signed for the Senate side, and Mr. Troy  
21 Judy, he signed for the House side; is that right?

22 A. Yes. The four chiefs of staff for the four legislative  
23 leaders, two Republican and two Democrat, were authorized to be  
24 the signatories on contracts.

25 MR. FRAM: Okay. If we can go back to that first page



1 of the agreement. If we can go down towards where it says --  
2 let's see here. Down towards consulting payments. Can you  
3 just put that up. Consulting payments.

4 Q. Was it the case -- okay.

5 MR. FRAM: Thank you, Stephen.

6 Q. Was it the case you were paid \$75,000, and it was divided  
7 up between two payments, one of 40,000 and one of 35,000; is  
8 that right? For your work.

9 A. Can you ask that question again?

10 Q. Sure. This is money -- you were paid to do the map-drawing  
11 work by the Republican members of the legislative task force;  
12 correct? That's -- this is an agreement with the Republicans?

13 A. Yeah. The only thing, I don't know if it was for the  
14 Republicans, but it was from the Republican authorization.

15 Q. Okay.

16 A. Yes.

17 Q. The Republican authorization -- okay. Mr. Judy and Mr.  
18 Schuler, as the Republican chief staffers, signed this contract  
19 with you; isn't that right?

20 A. Chiefs of staff, yes.

21 Q. Chiefs of staff, right. And they had an allocation to pay  
22 you some money, and they paid you \$75,000; is that right?

23 A. Yeah. They didn't pay me, but there -- there was a payment  
24 made from the state treasury.

25 Q. And the payment was from the Republican allocation of the

1 state treasurer; is that right?

2 A. Pursuant to the bipartisan agreement of the task force,  
3 yes.

4 Q. Okay.

5 A. Could I just point out one thing I didn't mention when you  
6 asked your previous question. When I entered into this  
7 contract, I had sought the advice of the legislative inspector  
8 general, and he advised to cancel all of my existing work with  
9 any other entities.

10 So I resigned my fundraising duties. And this was other  
11 than a -- I was serving as a board and commission member for  
12 the Ohio Department of Transportation at the time. But I  
13 severed all of my other duties on advice of the legislative  
14 inspector general. And so this was my only contract at the  
15 time. They never overlapped.

16 Q. Thank you. That was my next question. That was around  
17 August -- you severed around August 4; is that right?

18 A. That sounds about right, yeah. It was very close to when  
19 this was entered into.

20 Q. So, basically, in July, you still were doing your  
21 fundraising work, but then starting August you had severed that  
22 arrangement; is that right?

23 A. It was -- it was very abrupt about whether or not I would  
24 even be involved in this process. That decision was made very  
25 late by the principals. So it happened very quickly.

1 Q. I'm just trying to get the time frame right. Do I have it  
2 right that you got a contract August 1, started working on the  
3 redistricting, you severed your ties in August in terms of the  
4 fundraising? And so that's the break, if you say -- like you  
5 said, it was abrupt. There was this abrupt break from  
6 fundraising in the July period to doing the map-drawing  
7 consultancy in August?

8 A. Yeah. With the only caveat I'd say is I had an assistant  
9 in the fundraising world. And so as it became clearer at the  
10 very end that I was going to be doing this, the duties were  
11 being shifted to my assistant and I was withdrawing. And then  
12 we severed everything.

13 Q. Right. So putting aside your assistant, you're in the  
14 fundraising world in July, but you're in the consulting  
15 map-drawing world in August, for you, personally? Do I have  
16 that right?

17 A. Yes.

18 Q. Okay. Now, we talked about that hotel room at the  
19 DoubleTree. And somebody had to pick which room, literally,  
20 which room to use. Is that something you did with Ms. Heather  
21 Mann, now Heather Blessing?

22 A. You're referring to the second decade?

23 Q. In 2011, yeah.

24 A. Yeah, we went and looked at, I think, four or five  
25 different office spaces that we could use. And we felt

1 comfortable -- I felt very comfortable being there because we  
2 had been in the same hotel the previous decade.

3 Q. All right. And there's a room -- I don't know if you  
4 recall the number. Room 601 rings a bell?

5 A. Yeah, I believe that was the room we were in in the second  
6 decade.

7 Q. Yeah. And you took the hotel furniture out of the room and  
8 you put some computers in; is that right?

9 A. Yeah. I mean, obviously, the room was set up to be a hotel  
10 room. So there were things in there like desks and beds and a  
11 couple of loveseats that weren't needed, and so we paid a small  
12 fee to have those removed to make it more useful as office  
13 space.

14 Q. And you had three computers in there, in the room?

15 A. There were three sets of computers.

16 MR. FRAM: Why don't we put Plaintiffs' Exhibit 109 up  
17 on the screen, please. You can take a look at this.

18 Q. Mr. DiRossi, I don't know if you recall this invoice or not  
19 from the DoubleTree.

20 A. I don't specifically recall it.

21 Q. Okay. Is it consistent with your recollection -- do you  
22 see there, there's a charge for moving the furniture? Do you  
23 see that?

24 A. Yes.

25 Q. The DoubleTree charged \$50 to get those loveseats out of

1 there? Do you see that?

2 A. Yeah. And other furniture, yes.

3 Q. And other furniture. Okay. And you see the date of this  
4 invoice of July 12? Do you see that?

5 A. I do see that.

6 Q. Is that roughly -- is that consistent with your  
7 recollection as to when you entered into an agreement with the  
8 DoubleTree as to when you were going to secure this hotel room?

9 A. I don't know if that's the exact date, but it's around that  
10 time.

11 Q. Around that. And do you see the -- if you look over here  
12 on the left where it says Quantity, 1, Guest Room, July 17  
13 through October 15, 2011. Do you see that?

14 A. I do.

15 Q. Okay. So you were paying for the room to be able to use it  
16 starting on July 17; is that right?

17 A. I don't recall if that's functionally when we had access to  
18 it, but we needed to start moving some equipment over there  
19 before it was in use, fully in use.

20 Q. Okay. Were you over there in -- was it in use sometime  
21 between July 17th and the end of the month?

22 A. I don't specifically recall.

23 Q. Were you over there during July?

24 A. I -- July -- it seems likely, if we had signed an invoice  
25 for it, that it was over there, but it wasn't like one day we

1 weren't there and magically the second day we were fully  
2 operational. It took time.

3 Q. Right. And as you've already testified, during July you  
4 had not yet severed ties on the fundraising side; isn't that  
5 right? You were still an Ohio Republican fundraiser during the  
6 time you were setting this room up?

7 A. Yeah. I don't have -- obviously, I signed a termination  
8 contract, because there was a termination clause in my  
9 contract. If I had that, I would know exactly what day I  
10 severed officially, but I don't recall.

11 Q. Okay.

12 A. It may have been a little bit of time before the new  
13 contract was in place. I can't recall.

14 Q. But in any -- you were doing some work, weren't you,  
15 setting up this room before you severed your ties?

16 A. Well, with that -- I mean, without that data I just can't  
17 recall that logistical timeline.

18 (Plaintiff's counsel confer privately.)

19 MR. FRAM: I might be able to help you out a little  
20 bit there. Yeah. You were -- this is not a trial exhibit.  
21 This is for impeachment. May I approach?

22 JUDGE BLACK: Yes.

23 THE WITNESS: Thank you.

24 Q. Sir, if you could take a look --

25 MR. FRAM: This document, by the way, it was produced

1 in discovery. DiRossi 0000527.

2 Q. I'll just represent that these -- the numbers that start  
3 with your name DiRossi, that's because we got those from  
4 discovery from you, sir.

5 Does this help refresh -- this has an August 1, 2011 date  
6 saying that when the termination's effective and a signature,  
7 dated August 4, 2011. Do you see that?

8 A. I do.

9 Q. Does that refresh your recollection as to when you  
10 terminated your fundraising work?

11 A. I mean, it -- it doesn't make me remember it, but I see  
12 that's when I signed it.

13 Q. You have no reason to doubt that, in fact, you terminated  
14 your fundraising work effective August 1; isn't that right?

15 A. Right. That's --

16 Q. So you were setting up this hotel room while you were still  
17 doing the fundraising work; isn't that right?

18 A. If, in fact, we were setting it up before August 1st.

19 Q. Otherwise you were paying for two weeks for no reason?

20 A. Well, I mean, I wasn't the only one with access to it.  
21 There were people that were trying to have the furniture moved  
22 out. That might have taken some time to do. And then there  
23 was computer equipment that had to be purchased and had to be  
24 brought over there and had to be set up. So there were a lot  
25 of things that had to happen before the room actually became

1 functional.

2 Q. Uh-huh.

3 A. That was all happening very fast. I don't recall those  
4 exact dates.

5 Q. Okay. Now, you had keys to that Room 601; isn't that  
6 right? Key card?

7 A. I did, yes.

8 Q. And Ms. Heather Mann had a key card?

9 A. Yes.

10 Q. Okay. And some of the IT people you were working with,  
11 they had key cards, or not?

12 A. They might have had key cards at the time they were  
13 bringing equipment over, but for the future they wouldn't have  
14 had a key card.

15 Q. Did Mr. Troy Judy have a key card?

16 A. I believe so; I believe so.

17 Q. In fact, Mr. Troy Judy worked on -- you worked on one of  
18 the computers, one of the three you mentioned?

19 A. I did.

20 Q. And Ms. Mann worked on one?

21 A. She did.

22 Q. And Mr. Judy, did he work on one?

23 A. When he was there.

24 Q. When he was there? Okay.

25 Anybody else work on one of those three computers?



1 A. I mean, when you say "work on them," I mean I'm sure there  
2 were other people that viewed the screens, but, really, those  
3 were the three people that would operate -- operate the  
4 machines.

5 Q. Okay. And is Maptitude up and running on all those  
6 computers?

7 A. Yes, eventually. Yes.

8 Q. Okay. Did you need a password to access Maptitude and  
9 access the computers?

10 A. Yeah. There was a pass -- I mean, there was a screensaver  
11 that I think kicked on to save energy, or whatever. After 20  
12 minutes you needed a password to get into that.

13 Q. So you had the password and Ms. Mann had the password and  
14 Mr. Judy had the password; is that right?

15 A. Yeah.

16 Q. Anybody else have the password?

17 A. I actually don't know if the passwords were the same or if  
18 we set our own.

19 Q. Had a password. Fair enough.

20 A. Yeah.

21 Q. Anybody else have a password to be able to work those  
22 computers?

23 A. I don't have knowledge of that.

24 Q. You don't remember that?

25 A. No.

1 Q. Okay. And you said some other people came on by and would  
2 look at the screens. Let's go through some of the folks who  
3 did that.

4 Speaker Batchelder come in and look at the screens?

5 A. He was there occasionally, yes.

6 Q. Senate President Niehaus?

7 A. Yes.

8 Q. Senator Faber?

9 A. Yes.

10 Q. A fellow in this courtroom, Mr. Mark Braden, he came by and  
11 looked at and visited the room?

12 A. On a few occasions.

13 Q. Yeah. More than one. Any other Republicans you can recall  
14 coming into the room and looking at those screens?

15 A. Are you talking approximate -- can you -- elected officials  
16 or --

17 Q. Let's start with elected officials, then we'll talk about  
18 staff. Who else came on over to the hotel room, Republicans?

19 A. I think Senator Widener. He was one of the senators we  
20 talked about from Clark County. He was there maybe once or  
21 twice.

22 Q. Uh-huh.

23 A. Let's see. I believe then auditor of state Yost was there  
24 maybe two or three times.

25 Q. Okay.

1 A. I think Jon Husted was there once. Again, I apologize. I  
2 slipped into legislative redistricting. They were members --  
3 at the deposition we talked about this a lot. They were  
4 members of the apportionment board focusing on legislative  
5 redistricting, and I just confused the two. So my apologies.

6 Q. You're doing great, because that's one of my next  
7 questions. Let's just talk about the folks who visited to look  
8 at congressional maps.

9 A. So scratch Jon Husted, scratch Dave Yost. They were there  
10 because they were apportionment board members.

11 Q. That's what I thought you were going to say. Now, what  
12 about staff, again, coming over to look at congressional maps?

13 A. Yeah. Maybe not so much to come over and look at  
14 congressional maps, but there were a handful of staff that  
15 would come over and check on us and see what was going on and  
16 get updates on our process and timelines and all that stuff.  
17 The chiefs of staff that we talked about, other chiefs of staff  
18 had come over. Matt Schuler.

19 Q. Okay. These are all Republicans, though; is that right?

20 A. I don't know their registration, but they worked for the  
21 Republican legislature.

22 Q. Did any Democrat staff come over to Room 601 at the  
23 DoubleTree?

24 A. Not -- not in my -- not when I was there.

25 Q. Any Democrat legislative elected representatives come on

1 over into the DoubleTree, 601?

2 A. Not -- not to my knowledge. Not that I recall.

3 Q. Okay.

4 A. Nor did I attend wherever they were.

5 Q. My understanding is sometimes work over there could be  
6 pretty intense, like, almost 24-hour shifts; isn't that true?

7 A. Unfortunately, that's very accurate.

8 Q. Yeah. Is it fair to say that HB 319 was drawn in that  
9 hotel room?

10 Let me be clear. At some point or another, the LSC  
11 actually puts the map in the final bill form; isn't that right?

12 A. Yes.

13 Q. And for the record, could you tell us what the LSC is.

14 A. That's the Legislative Service Commission. It's the  
15 nonpartisan entity that staffs the General Assembly, prepares  
16 bills and laws, and puts them in the proper form so that the  
17 legislature can vote on them and enact them.

18 Q. And you have to give certain computer files to the LSC so  
19 they could do that; is that right?

20 A. Yeah. As I mentioned, this is so very unique. LSC did not  
21 have the equipment in order to draft the actual bill, so we had  
22 to provide the language to them, and then they --

23 Q. Right.

24 A. -- put it in the right form.

25 Q. And you gave -- did you give them a block equivalency file?

1 A. I don't recall if there was a block equivalency file, a  
2 block assignment file, a text file or some other type of  
3 Maptitude output. I don't recall what --

4 Q. Okay.

5 A. -- what it was.

6 Q. But you gave them the Maptitude output and then they could  
7 turn it into a bill form; is that right?

8 A. Yes.

9 Q. And for HB 319, you gave them the Maptitude output that was  
10 generated in Room 601 at the DoubleTree; is that right?

11 A. Yes.

12 Q. Now, when it came to HB 369, you didn't generate that  
13 Maptitude output in the DoubleTree, did you?

14 A. No.

15 Q. Do you know where that was generated?

16 A. Well, at that point we had terminated our -- we had  
17 moved -- moved out, and I was working in the statehouse in an  
18 office with Mr. Bennett and others. And Heather, I think, had  
19 gone back to being an employee of the Ohio House of  
20 Representatives. So she would have been working in the Riffe  
21 Center.

22 Q. And on whose computer was the Maptitude output that was  
23 used for HB 369? On whose computer was that generated?

24 A. So I think that's -- I think pieces of it might have come  
25 from two different computers. I worked extensively on what

1 became 369, but, obviously, Heather and I were still in  
2 contact, so we might have been sharing some ideas to  
3 incorporate. Does that answer your question?

4 Q. Basically. I think, if I understand you correctly, the  
5 Maptitude output that was given to the LSC for HB 369 was  
6 generated on a combination of your computer and Ms. Mann's  
7 computer; is that right?

8 A. Yeah. I -- again, I can't -- I don't recall the specifics.  
9 Heather might have been the one to actually send the file  
10 there, but I know I had worked on a lot of what she was sending  
11 there on my computer.

12 Q. But it was one of the two of you or some combination?

13 A. I would think so. I would think so, yes.

14 Q. I apologize for talking over you.

15 A. No. It's --

16 Q. It was one of the two of you or some combination?

17 A. Well, only one of us would have sent it to them. I just  
18 can't recall which one.

19 Q. Fair enough. And for that, I think you said you weren't  
20 doing that from a hotel room. By then you were doing it back  
21 from your work offices; is that right?

22 A. Well, I was not an employee of the Senate, so I really  
23 didn't have an office. I was in some closet-type thing, room.  
24 And Heather, I think, was just in her regular office.

25 Q. So she either came from her regular office or from your

1 closet; is that right?

2 A. Yes.

3 Q. Okay. So you didn't need a hotel room at that point to do  
4 that work, did you?

5 A. Well, this was much less involved than the process for the  
6 first piece. Much less.

7 Q. But you didn't go back to get some hotel room to go do it,  
8 did you?

9 A. Well, it wasn't a defined process. The first time through  
10 we knew that we were going to go through this process. The  
11 second time it was really up in the air depending on what was  
12 happening with the referendum, how negotiations with the  
13 legislative Democrats were going, and, really, there was only a  
14 signed -- a certain set of requests that they made that needed  
15 to be worked on in order to produce what became the introduced  
16 version of 369. So it was a much less involved process, and it  
17 was not ideal to be where we were.

18 Q. So a lot more work was done on HB 319 to put the whole  
19 package together; is that right? Is that what you're telling  
20 me?

21 A. I mean, the time for 369 was much more condensed, and there  
22 were finite requests that the legislative Democrats were  
23 making. 319 was the whole process over a longer period of  
24 time.

25 Q. Now, during your work on redistricting in 2011, did you

1 work with Mr. Adam Kincaid?

2 A. Yes, in 2011.

3 Q. Okay. And you --

4 A. And by "work with," I mean he was one of a number of people  
5 that would send ideas or I could bounce ideas off.

6 Q. Right. And he's with the National Republican Congressional  
7 Committee; is that right?

8 A. I believe that's right.

9 Q. And you could talk with him about configuration of some  
10 districts; is that right?

11 A. Well, not -- well, I could ask him, I mean, anything. He  
12 was a resource. He was knowledgeable, as well as many other  
13 people that I was talking to.

14 Q. But you did talk to him about configuration of districts,  
15 didn't you?

16 A. Not -- I talked to him about ideas about the districts.

17 Q. Well, what about the "configuration of the districts"? Did  
18 you talk to him about that?

19 A. What do you mean by configuration of the districts?

20 Q. Well, the shape of the district.

21 A. I guess -- I guess. I guess that's -- I mean, it was never  
22 anything that defined.

23 Q. You talked to him about the geographical configuration of  
24 the districts?

25 A. Yeah, maybe I would have shared ideas with him or struggles



1 we were having after we had some of the major pieces that I  
2 talked about earlier in place on some of the things that were  
3 left and some of the troubles that we were having or some of  
4 the requests that we were dealing with.

5 Q. Including the specific geographies of some of the  
6 districts?

7 A. Well, he could certainly make suggestions.

8 Q. And he did that on specific geographic districts lines; is  
9 that right?

10 A. On some cases I'm sure he did. I don't recall any  
11 specifically.

12 Q. Did he send you some draft maps?

13 A. Oh, I'm sure he did.

14 MR. FRAM: Why don't we take a look at Plaintiffs'  
15 119.

16 JUDGE WATSON: 119?

17 MR. FRAM: Yes, please.

18 Q. This is -- I've got an e-mail here on September 2, 2011  
19 from Mr. Kincaid to you, Ms. Mann, and Mr. Whatman. Do you see  
20 that?

21 A. I do.

22 Q. All right. And he's providing an attachment -- "Revised  
23 attached." Do you see that?

24 A. Yes, I see that.

25 Q. And the heading is "New Idea Redraft." Okay. Do you

1 recall him sending you a redraft of a map around the very  
2 beginning of September, around September 2?

3 A. I -- I don't recall what this is referring to just based on  
4 what I'm seeing here on my screen.

5 Q. But do you recall if he sent you maps -- revisions of maps  
6 in early September of 2011?

7 A. Well, he -- he sent this e-mail, I'm sure. I just cannot  
8 recall what it is.

9 Q. Okay. Let's just start out one step at a time. Do you  
10 recognize his e-mail address?

11 A. I'm -- I mean, I believe it's his.

12 Q. Okay. And was that your e-mail address back then?

13 A. That is mine, yes.

14 MR. FRAM: Okay. Your Honor, we'd like to move  
15 Plaintiffs' 119 into evidence. There are no pretrial  
16 objections.

17 JUDGE BLACK: Any objections?

18 MR. STRACH: Your Honor, I don't have my list. We  
19 would request that it be admitted conditionally. And, of  
20 course, if it's got no objection, then there will be no  
21 objection, but I just don't know at the moment.

22 JUDGE BLACK: Well, why don't you get your list. I'll  
23 admit it conditionally. If there's no objection, there's no  
24 objection. He's going to have his list in front of him.

25 MR. STRACH: I've got it. No objection. Sorry about

1 that, Your Honor.

2 JUDGE BLACK: Thank you. Very well. That's what  
3 you're going to file; is that right?

4 MR. FRAM: Yes. I think that's the list we'll be  
5 filing.

6 JUDGE BLACK: Good.

7 All right. It's admitted.

8 (Plaintiffs' Exhibit 119 was admitted.)

9 Q. And then if we could go down to -- there's a 10:09 PM  
10 response from you in this e-mail chain to Mr. Kincaid, Friday  
11 night, 10:09 in the evening, saying you'd provide some feedback  
12 to him over the weekend. Do you see that?

13 A. I see it.

14 Q. Okay. In fact, were you corresponding to each other late  
15 at night about specific map suggestions?

16 A. Well, I was corresponding with everybody late at night for  
17 this process.

18 Q. But, in particular, you were including Mr. Kincaid?

19 A. Well, in this case, obviously, I sent this e-mail at 10:09,  
20 but I don't know if that means particularly.

21 Q. Well, if he was among --

22 Putting aside whoever else you might have been e-mailing  
23 to, you were e-mailing to Mr. Kincaid around September 2, 2011,  
24 about specific maps; isn't that right?

25 A. Well, again, I still don't recall what this new idea

1 redraft is, but the e-mail is what the e-mail is, yeah.

2 Q. So the answer to my question is yes?

3 A. And the question is if I sent this e-mail?

4 Q. No. My question is do you recall e-mailing back and forth  
5 with Mr. Kincaid in early September, 2011, about specific  
6 mapping proposals.

7 A. I don't recall, but you're showing me the e-mail, so --

8 Q. And you have no reason to disbelieve that you, in fact,  
9 were corresponding with Mr. Kincaid by e-mail about specific  
10 map proposals in early September 2011?

11 A. Did I produce this document to you?

12 Q. No. This is from a public records request. But you may  
13 have been one of the original responders to. This is not the  
14 DiRossi subpoena from this case.

15 A. Yeah, I mean, it sure looks like something I might have  
16 said.

17 Q. Okay.

18 A. Or an e-mail I would have sent.

19 Q. Okay. We go down to the next morning, 8:13 in the morning.  
20 There's a further response back from Mr. Kincaid. And here  
21 he's sending you, along with Ms. Mann and Mr. Whatman, screen  
22 images and a spreadsheet for a block file that he sent the  
23 night before. Do you see that?

24 A. I do.

25 Q. And he says he's also sending you a block file. Do you see

1 that? Let's just talk about that a little bit, each piece of  
2 that. Okay?

3 So do you recall Mr. Kincaid sending you spreadsheets about  
4 different maps?

5 A. Yeah. I mean, I don't know if they were spreadsheets or  
6 Word documents, but he would send supporting information.

7 Q. And that supporting information, that included political  
8 scorings; isn't that right?

9 A. It could have. Geography changes. I mentioned that the  
10 national folks were using a unified -- I was using a new  
11 unified index. They were using a different mechanism that I  
12 didn't know how to calculate. So they would always have to  
13 send it to me. I couldn't calculate it myself.

14 Q. The metric they use, is that sometimes called the PVI  
15 Index?

16 A. I refer to it as the R+1, D+1 system.

17 Q. Fair enough.

18 A. I don't know if that's PVI.

19 Q. Okay. We'll use yours, the R+1, D+1.

20 He would send you spreadsheets with R+1 and D+1 scorings  
21 for congressional districts; isn't that right?

22 A. I'm sure he did sometime along with other -- other  
23 information.

24 Q. Now, block files. Did you have any understanding of what  
25 the phrase "block file" meant?

1 A. Generally.

2 Q. It's a block-assigned file?

3 A. Generally.

4 Q. And that's where you have the census blocks and you  
5 decide -- which tells you which ones are in which district; is  
6 that right?

7 A. Yeah, I mean, it's -- I think we're getting down into the  
8 weeds on the technology, but it's how the software -- you could  
9 transfer --

10 You couldn't just send, like, a Word document to another  
11 computer and open it. You had to send this very large file as  
12 some type -- not encrypted, but text file that did all its  
13 assignment.

14 Q. It took me a while, but I think I figured it out.  
15 Maptitude, you can take all these census blocks, and if you  
16 know which one's in which district, it can give you a map,  
17 which tells you which map lines are drawn around those census  
18 blocks; isn't that right? That's what Maptitude does?

19 A. It's the way you would transfer -- transfer the GIS  
20 portions of the map from computer to computer.

21 Q. Right. And if you had political scoring information, say,  
22 unified index about a census block, Maptitude, like one  
23 gigantic adding machine, could add it up and tell you what the  
24 scoring would be for the whole district; isn't that right?

25 A. Yeah. Along with the population deviations, the

1 African-American populations, the Hispanic populations, all  
2 those things.

3 Q. And you could get that, political scoring for the district,  
4 using that giant adding machine that Maptitude really -- that  
5 function that Maptitude had; isn't that right?

6 A. You're asking me if Maptitude could do that?

7 Q. You would take -- Maptitude would take that block  
8 equivalency file, it could generate the map for the district,  
9 and when it did that, it could tell you the political scorings  
10 of the district as long as it had the political information  
11 about -- at the census block level?

12 A. So, I mean, you're obviously focused on the political  
13 thing, but you never just did that. It just did everything.  
14 It was all a package.

15 Q. But it would always include the political scoring?

16 A. Well, it would always include everything.

17 Q. Including the political scoring?

18 A. Yes.

19 Q. Why don't we go to page four of the document, please,  
20 September 3, 2011, 11:54 in the morning.

21 Now, you were copied on this, if I've got that right.  
22 Actually, it was addressed to you from Mr. Whatman. Do you see  
23 that? And, again -- do you recognize these e-mail addresses  
24 from people that you were using back in the day?

25 A. Well, I definitely recognize mine. And I think Heather's

1 is accurate, too. The other ones, yeah, I didn't really pay  
2 attention to them. They look right.

3 Q. Okay. Now, do you see where he says Adam -- I'll quote.  
4 "Adam: Did we tell you we needed the four-way split with the  
5 changes also," quote/unquote? Do you see that?

6 A. I do.

7 Q. Do you have any recollection of a four-way split, what it  
8 meant?

9 A. Yeah, this was one -- this was an idea that came from the  
10 folks in D.C. to split Franklin County into four ways, which  
11 was rejected.

12 Q. Right. And that approach would have resulted in -- well,  
13 let me back up.

14 That was rejected, and instead, a new district was created  
15 in Franklin County instead of splitting it up four ways; isn't  
16 that right?

17 A. Well, as I -- as I mentioned, there were some overarching  
18 goals that we wanted to achieve, the legislative leaders wanted  
19 to achieve in the map, one of which was the creation of a new  
20 district in Franklin County. So, obviously, this was contrary  
21 to that, so it was, you know, discarded.

22 Q. Right. And you said -- the four-way split, that would have  
23 resulted in 13 Republican seats; is that right?

24 A. I mean, the four-way split would have resulted in a  
25 four-way split of Franklin County. I don't really recall



1 anything else about it.

2 Q. You don't recall, for the statewide map, it would have  
3 resulted in 13? Okay.

4 A. You're assuming that the map would, you know, have a  
5 desired outcome. Again, as I mentioned, the unified index that  
6 I had used and other things had been very volatile. So, you  
7 know, those indexes are designed to look backwards and show how  
8 previous election results had happened. It is very imprecise  
9 going forward, and I can cite numerous examples of why that is.  
10 Or my personal experience was that.

11 Q. But you thought the unified index was -- it was your  
12 preferred index; isn't that right?

13 A. In a world of imperfect, it was the best thing that I could  
14 come up with to show the historical election returns of  
15 districts.

16 Q. Right.

17 A. And, of course, as I mentioned, nobody really agreed with  
18 me.

19 Q. But everybody had some political index they were interested  
20 in?

21 A. Yeah. Everybody had their own ideas.

22 Q. Okay. Now, during the redistricting process, is it clear  
23 to you -- let me back up.

24 During the redistricting process, you were in communication  
25 with Senate President Niehaus; is that right?

1 A. Yes.

2 Q. It was clear to you that he was interested in Speaker  
3 Boehner's input?

4 A. I mean, he was the Speaker of the United States House of  
5 Representatives, so I'm sure he was interested in his opinion.  
6 Ultimately, Speaker Batchelder and Tom Niehaus, the president  
7 of the Senate, they were responsible for getting the votes in  
8 the legislature to get the map through. And I am sure they had  
9 numerous conversations with all kinds of interested parties  
10 across the political spectrum, but at the end of the day, they  
11 had the responsibility to make sure that the map that was being  
12 voted on got the votes.

13 So I'm sure a lot of people's opinions were important. I'm  
14 sure they talked to a lot of people that were important, but  
15 the people of the caucuses that were voting on it, that was  
16 what was most important, and that was their responsibility.

17 MR. FRAM: Move to strike as non-responsive.

18 Q. My question to you, sir, is, from your conversations, your  
19 personal conversations with Senate President Niehaus, was it  
20 clear to you that he was interested in Speaker Boehner's input?

21 A. I thought I answered that. Yes, he was. He was the  
22 speaker of the United States House of Representatives and so he  
23 was interested in his thoughts.

24 Q. Okay. And I think we've already seen the e-mail. You were  
25 in communication with Mr. Tom Whatman; correct?

1 A. Occasionally, yeah.

2 Q. And you knew that he worked closely with Speaker Boehner;  
3 is that right?

4 A. Yes. I don't recall in what capacity, but yes.

5 Q. And if you wanted feedback about what Speaker Boehner  
6 thought about a map, Mr. Whatman, he was your point of contact?

7 A. That would be one. I guess it depends on what information  
8 I was seeking. But I could have gone to President Niehaus or  
9 Speaker Batchelder or some other channel.

10 Q. To understand what Speaker Boehner's views were?

11 A. Yeah. But, again, it depends on what information I was  
12 seeking, maybe what method I would have used.

13 MR. FRAM: Why don't we put --

14 Q. Well, let me ask you a question.

15 MR. FRAM: Well, no. Let's put Plaintiffs' Exhibit  
16 124 on the screen.

17 Q. This is an e-mail. It's Saturday night on September 10,  
18 2011. And you received this -- I'm sorry. You sent this to  
19 Senator Faber. Do you see that?

20 A. I do.

21 Q. Now, you recall Senator Faber?

22 A. Yes.

23 Q. Okay. And you had gotten to know him through your  
24 fundraising work with Republicans, Ohio senators; is that  
25 right?

1 A. Well, he was the president of the Senate and a member of  
2 the House of Representatives when I was in the House, and also  
3 a member of the Senate when I worked in the Senate. So I've  
4 known him a while.

5 Q. And in 2011, he was in leadership on the Republican side in  
6 the Ohio Senate; is that right?

7 A. Yes.

8 Q. And you see there's a reference here how you put his  
9 concept into a map. Do you see that?

10 A. I do.

11 Q. Okay. Now, do you see the next line there talking about  
12 trading territory between CDs 4 and 5? Do you see that?

13 A. I do.

14 Q. And at that time Representative Jordan, he was the  
15 representative from CD4; is that right?

16 A. Yeah. He was the congressman from Congressional 4.

17 Q. And Representative Latta was the congressperson from  
18 District 5; is that right?

19 A. Yes.

20 Q. Okay. And do you see there you've got a map proposal -- 4  
21 and 5, they're off in the northwest part of the state; is that  
22 right? Northwest corner?

23 A. Yes.

24 Q. And that map --

25 A. Well, apologies. Number 4 ended up in Lorain County after

1 we went through all of the iterations with 369, but, generally  
2 speaking, they're northwest Ohio districts.

3 Q. Four goes a lot of places. I'll give you that. But part  
4 of it is in the northwest corner; is that right?

5 A. Yes.

6 Q. And do you see that, it says NW "Ohio proposal.gif"? Do  
7 you see that?

8 A. Yes.

9 Q. And that would have been the map that you sent back to  
10 Senator Faber; is that right?

11 A. Right.

12 Q. And that's about northwest Ohio; is that right?

13 A. Without seeing that maybe blown up -- and I'm not sure  
14 blowing that up is going to be helpful, but I'm pretty sure,  
15 like what we talked about -- or I talked about before, Senator  
16 Faber was the one I mentioned was very interested in Mercer  
17 County. And both of these districts, I think, are two of the  
18 three districts that converge in Mercer County. He was a  
19 member of President Niehaus' leadership team. So I had spent  
20 some time trying to -- I don't want to stay placate, but put  
21 his thoughts into -- his ideas into a map and, you know, show  
22 him that we were taking his -- his request seriously.

23 Q. Understood. And part of you taking him seriously is you  
24 were giving him some political election scoring data, didn't  
25 you, in this e-mail?

1 A. Yes.

2 Q. You told him what Jordan's scoring was and Latta; right?

3 A. Yes.

4 Q. Now, here you used what you call -- "on presidential."

5 Okay? Is that the '08 presidential race?

6 A. Yeah, I'm sure it was. As I said, I would have liked to  
7 stick to the unified index, but everybody else was looking at  
8 different things. So, you know, a lot of times if they made a  
9 specific request for something, it would -- I wouldn't use what  
10 I had thought was the best way.

11 Q. And so here you could show him that Jordan's '08 election  
12 scoring was 52.69 percent; is that right?

13 A. It is. I mean, that's what I -- I wrote, so I assume I got  
14 that from --

15 Q. And that's for the map you were sending over to him?  
16 That's what that scoring would be under, this map; is that  
17 right?

18 A. Yeah. That would have been on whatever this northwest Ohio  
19 proposal was.

20 Q. Okay. And similar here, Latta's was -- according to the  
21 proposal, would have had an '08 presidential scoring of 51.91;  
22 is that right?

23 A. Yeah. So this -- I think what I was trying to show here  
24 is, I said on the geography -- again, I was talking about the  
25 geography, that I traded territory between 4 and 5. And so,

1 intuitively, one of the districts, when you trade geography, is  
2 going to go up and one of them's going to go down. So I think  
3 I was showing the geography changes that I was doing. I was  
4 trying to show it as graphically, because I, you know, couldn't  
5 send a block file or something like that. And then I was also  
6 showing the political side. So both of those pieces together.

7 Q. Understood. You also say here, quote, DC is increasingly  
8 pushed to put the lid on this, ellipses, close quote. Do you  
9 see that?

10 A. I do.

11 Q. So at that point, on September 10, 2011, almost 10:00 at  
12 night, you were letting Senator Faber know that D.C. wanted to  
13 wrap this up?

14 A. Well, yeah, I think what I was doing here is I was --  
15 Senator -- President Niehaus was getting frustrated that his  
16 own members of the leadership this late were making suggestions  
17 and running ideas and thinking of things. And so I was trying  
18 to gently nudge and say, "We've got to stop. We've got to  
19 stop." So I just was trying to use D.C. as trying to do this  
20 to try to nudge him to say, "Hey, knock it off. We've got to  
21 get this done."

22 This is like hours, if not days, before the map was to roll  
23 out. And I don't even know if we ended up doing this or not.

24 Q. Just a recollection that the map was actually introduced in  
25 the General Assembly on the 13th of September. Do you recall

1 that?

2 A. That -- that sounds right.

3 Q. That would be the Tuesday after the Saturday night?

4 A. That sounds right.

5 Q. Okay. But you didn't say President Niehaus wants to wrap  
6 it up; you said D.C. wants to put a lid on it; right?

7 A. Yeah.

8 Q. Okay. Okay.

9 A. There was no need to -- trying to protect the president a  
10 little bit and tried not to have one of his -- tell one of the  
11 leadership members that the true leader of the caucus was  
12 telling him "knock it off," so --

13 Q. Instead you said D.C. tells you to knock it off?

14 A. Yes.

15 MR. FRAM: Now, Your Honor, I'd like to move this  
16 Exhibit 124 into evidence, again. Our version of this  
17 spreadsheet says there are no objections.

18 JUDGE BLACK: Any objection to 124?

19 MR. STRACH: My version of the spreadsheet is the  
20 same. No objection.

21 JUDGE BLACK: No objection. It's admitted.

22 MR. FRAM: Okay.

23 (Plaintiffs' Exhibit 124 was admitted.)

24 Q. Let's stick to that weekend just before the map went in.  
25 Let take a look at Plaintiffs' Exhibit 125. This one is



1 entitled "Redistricting 'Tweaks.'" You're copied on it, but  
2 this one is from Senate President Niehaus. Do you see that?

3 A. I do.

4 Q. Now it's Sunday morning, 9:25, the next morning. And he  
5 was communicating to you and Mr. Whatman about these  
6 last-minute tweaks. Do you see that?

7 A. I see where he said that.

8 Q. Is this part of what you said, he's getting a little  
9 frustrated that some of his Senate members were coming in with  
10 some last-minute ideas? Do you see that?

11 A. I see that.

12 Q. And then he says to you folks, he says -- well, let me back  
13 up.

14 He identifies tweaks from Faber. We talked about those.  
15 He also talked about tweaks from Senator Widener. Do you see  
16 that?

17 A. I do.

18 Q. And we'll get to that in a second. But he does say, quote,  
19 "Part of this process is letting them see how few options you  
20 had."

21 Do you see that?

22 A. I see that.

23 Q. Right. So Senate President Niehaus wanted his members to  
24 understand the limited options that you -- Mr. DiRossi,  
25 yourself -- had; is that right?

1 A. I mean, I didn't send this e-mail, so I'm not going to  
2 speak for what the president of the Senate meant to convey.

3 Q. But he did convey -- you have no doubt he conveyed this; is  
4 that right?

5 A. I see the e-mail, but you're asking me what he meant by it.  
6 I don't -- I don't know.

7 Q. Okay. But he also conveyed it to Mr. Whatman; is that  
8 right?

9 A. Well, he sent it to him, yes.

10 Q. Yeah. So this message was delivered to both -- to you, but  
11 also to Mr. Whatman; isn't that right?

12 A. Well, I don't know if he meant to cc me for a reason or if  
13 he meant to do it out of a courtesy because I was working on  
14 it. Again, I don't know.

15 Q. You were actually an addressee, isn't that right, not just  
16 a cc?

17 A. Yeah, but -- yeah. I don't know --

18 Q. Right.

19 A. -- what his intention was for including me on that.

20 Q. And so was Mr. Whatman. He was an addressee; isn't that  
21 right?

22 A. It appears to be.

23 MR. FRAM: Okay. Your Honor, I'd like to move this  
24 one into evidence also. And, once again, our spreadsheet shows  
25 no objections.

1 JUDGE BLACK: Any objection?

2 MR. STRACH: None here, Your Honor.

3 JUDGE BLACK: It's admitted.

4 (Plaintiffs' Exhibit 125 was admitted.)

5 Q. And then he says the following, quote, "I am still  
6 committed to ending up with a map that Speaker Boehner fully  
7 supports, with or without votes from two members of  
8 leadership." Do you see that?

9 A. I do.

10 Q. Do you have any reason to doubt that he, in fact,  
11 communicated, in writing, Sunday morning, September 11, 2011,  
12 that he was still -- he was committed to ending up with a map  
13 that Speaker Boehner fully supports? Do you have any reason to  
14 think he didn't say that?

15 A. If you want to ask me if he put it in an e-mail, I'll say  
16 yes. But if you want to ask me whether he meant it or what he  
17 intended or what message, I -- that's for him to say.

18 Q. There's a reference here to the Widener change again. I  
19 want to ask you about that. But the easiest way to do that is  
20 to -- maybe we could look at -- let's see. Plaintiffs' Exhibit  
21 581, also September 11, that Sunday. This one's at 10:20 in  
22 the morning. So we're just -- we're going forward about --  
23 we're going forward about an hour. The last one had been 9:25  
24 in the morning.

25 Now, on this one -- this is an e-mail from you on that

1 date. Do you see that?

2 A. I do.

3 Q. Okay. And do you have any reason to doubt you sent this  
4 e-mail?

5 A. No.

6 Q. You recognize your e-mail address; don't you?

7 A. Yeah. No, I remember this e-mail. I remember this issue.

8 MR. FRAM: Okay. Well, let's move it into evidence.  
9 Again, no objections have been lodged.

10 MR. STRACH: No objection.

11 JUDGE BLACK: It's admitted.

12 (Plaintiffs' Exhibit 581 was admitted.)

13 Q. At that time, that Sunday morning, you were supposed to --

14 A. Could I just say -- I'm sorry, I apologize. I didn't  
15 underline any of this, just for the record. I mean, you --

16 Q. Fair enough.

17 A. In a number of these e-mails there's things that have been  
18 either underlined or emphasized. I wasn't doing that. I think  
19 you're doing that.

20 Q. Thank you for the clarification.

21 A. Yeah.

22 Q. I appreciate that.

23 But you nonetheless said -- it's underlined, but you said  
24 it. Quote, "I know you are expecting a map from me with  
25 proposed Widener changes."

1 But then you said you weren't going to be sending it over  
2 because you just talked to Senate President Niehaus about it;  
3 isn't that right?

4 A. Yep.

5 Q. Okay. And then you state some reasons why not in the  
6 e-mail; isn't that the case? Do you recall, in fact, those  
7 changes weren't going to work out given the amount of voters  
8 you were going to now have to put into Stivers' district; is  
9 that right?

10 A. In general, yes.

11 Q. That would be District 15?

12 A. Yes.

13 Q. Okay. About 110,000 voters would have to go into District  
14 15 under Widener's proposal; is that right?

15 A. Right.

16 Q. Okay. And one of the things that would happen if you did  
17 that, you put those 110,000 people into the district, it would,  
18 quote/unquote, "push Stivers index down", quote/unquote? Do  
19 you see that?

20 A. I do see that.

21 Q. And so you told President Niehaus -- you told Mr. Whatman  
22 that's the reason you were not going to make those changes?

23 Yeah. So there's a lot going on here, and this is all  
24 happening very fast. I think -- I don't know under the first  
25 round of questions if we talked about what was happening in

1 Clark County. But Senator Widener, just as Senator Faber, was  
2 very passionate about what was happening in Mercer County.  
3 Senator Widener and another member of the Senate leadership  
4 team was very concerned about what was happening in Clark  
5 County and the fact that in the 319 map Clark County was split  
6 into two districts.

7 And he was trying to find a way to unify Clark County. And  
8 he really -- that was his goal. Where Clark County was unified  
9 and what district and what else happened, he didn't care about.  
10 He wanted Clark County to remain whole.

11 So, again, I hate to use the word "to placate," but the  
12 president asked me to devote some time to Senator Widener's  
13 ideas, to try to get them to see if something would work out.  
14 And I knew full well that they wouldn't work out.

15 And I was using -- I think using -- sending this -- I told  
16 them that I would send it to D.C. to see what they thought.  
17 And then I called and said, "Hey, I'm not even going to do that  
18 because this doesn't work." And so the map that rolled out,  
19 Clark County was split. And it wasn't until the second map  
20 where we were able reach -- achieve this goal, but it was  
21 because of the democrats requesting that Montgomery County be  
22 made whole that started this cascade that we were able to unify  
23 Clark County.

24 So that's all happening here. But this was another one of  
25 the leadership member's late-asking for things that we said no

1 to. And it was just kind of the legislative way that you  
2 let -- you give the -- let the member know that you're working  
3 on it and you took the request seriously. But, I mean, I knew  
4 from working on the map that this wasn't going to work. And so  
5 that's what all this is showing.

6 MR. FRAM: Your Honor, can I request a standing motion  
7 to strike for both hearsay and lack of foundation every time  
8 the witness testifies that something was done because of what  
9 the Democrats wanted, the same as the objection before during  
10 direct exam, rather than disrupt my own interrogation now.

11 JUDGE BLACK: Can I have some white noise if you've  
12 been unable to get symphonic.

13 (Judges confer privately.)

14 JUDGE BLACK: Yes.

15 MR. FRAM: Thank you, Your Honor.

16 Q. Now -- and I apologize if you answered this. Your answer  
17 came by a little fast before.

18 One of the reasons that it didn't work out -- you were  
19 saying it's not going to work out, this unifying Clark County.  
20 At least as of September it wasn't going to work out was  
21 because it would push Stivers' index down; isn't that right?

22 A. Well, yeah. I mean, but I was talking about -- that was  
23 just one thing that I was providing him with. I was talking  
24 about the significant population changes in the two -- the two  
25 previous sentences, for lack of paragraphs, but then, as I

1 said, I had that information available, so I -- I included that  
2 in the e-mail, but I didn't underline it.

3 Q. I'm sorry, but --

4 A. I didn't underline it.

5 Q. No, I understand that.

6 A. Yeah.

7 Q. But you said it?

8 A. I -- I e-mailed it.

9 Q. Yeah. Now, let's go down just a little bit to 1:44 in the  
10 afternoon. Sunday is what time? Time's a waistin' on Sunday?

11 A. I'm sorry?

12 Q. I'm just going down to the next e-mail down.

13 Mr. Whatman gets back to you that same day, the same  
14 Sunday, the same e-mail chain. He thanks you and he says,  
15 quote, "Yea that would be crazy." Do you see that?

16 A. I do.

17 Q. So Mr. Whatman, he agreed with your assessment that the  
18 Widener changes in unifying Clark County was not going to work  
19 out?

20 A. I mean, again, he sent that to me. That's what it appears,  
21 but you can ask him what he meant by that.

22 Q. Okay. And then if we go down to the next e-mail -- let's  
23 see. Yeah, it's 1:50 in the afternoon. Mr. Whatman e-mails  
24 you again, and -- where he says, quote, "Ray was there some  
25 other change you guys wanted to run by me? Got that impression



1 from matts VM," voicemail, "a bit ago," quote/unquote. Do you  
2 see that?

3 A. I do.

4 Q. So you were running other changes past Mr. Whatman on  
5 Sunday, September 11?

6 A. I don't recall. I mean, this is -- this is crunch time  
7 where we needed to get this bill to LSC. So I don't recall if  
8 there were other things I was working on or this was kind of  
9 the last -- the last one.

10 Q. Well, let's go down a little bit, the next e-mail.

11 A. Okay.

12 Q. You responded back to him. He asks you if there was more  
13 changes you're going to run past him. And your response was  
14 quote, "yes - I will call you momentarily once I get off phone  
15 with Faber."

16 Do you see that?

17 A. I do.

18 Q. Okay. So, in fact, you were running changes past Mr.  
19 Whatman on Sunday, September 11, 2011; isn't that right?

20 A. Well, I don't recall if I ever called him, but, again, this  
21 is another leadership member taking, literally, every minute to  
22 throw ideas against the wall and see if something would stick.  
23 And, you know, as a staff person, we're trying to placate the  
24 members, and maybe some -- you know just run out the clock.

25 So it might have been, Hey, I'll call you momentarily to

1 say, Yeah, I have nothing. But, I mean, I don't recall what I  
2 have -- I don't recall if I called him or what there might have  
3 been.

4 Q. Let me see if I can unpack this a little bit. You were  
5 talking with Faber about Faber's proposals that weekend; isn't  
6 that right?

7 A. Yes.

8 Q. Okay. And you had to get off the phone with Faber before  
9 you could get back to Whatman; isn't that right?

10 A. Yeah. I couldn't be on the phone with both of them.

11 Q. Right. And you told Whatman, I'll call you momentarily;  
12 isn't that right?

13 A. That's what I said in the e-mail.

14 Q. It wasn't your practice to tell people you'll get back to  
15 them momentarily and then blow them off; is that right?

16 A. Well, sometimes. It was a very chaotic process.

17 Q. So you did that to Speaker Boehner's representative? You  
18 told him, "I'll call you momentarily," but then you were just  
19 kidding?

20 A. Well, I might have had the intention of calling him and  
21 maybe I didn't call him. Maybe something else came up. Maybe  
22 the president of the Senate called and I got on another call.

23 Q. Well, we can agree on that your intention was to get in  
24 touch with him momentarily?

25 A. Yes. Yes. But to convey what -- you said it was

1 predicated on there being other changes. I don't know that to  
2 be true.

3 Q. Okay. Well, let's take a look at -- let's take a look at  
4 Plaintiffs' Exhibit 126.

5 Now, this is now Monday. We've gotten past the weekend,  
6 barely. Barely.

7 A. Yeah, I'm having flashbacks to 1:00 o'clock in the morning.

8 Q. 1:06 in the morning. Your crunch time. And you're  
9 e-mailing to Senate President Niehaus, copying Senator Faber,  
10 Matt Schuler, the chief of staff, and you're providing what you  
11 call work -- quote, unquote, "Work product from tonight's  
12 efforts." Okay? And here we've got -- you're providing them  
13 some political scorings for Representative Latta and  
14 Representative Jordan's districts; is that right?

15 A. Well, I'm doing that, but I'm also conveying the geography  
16 changes. Again, I'm doing them together. You're just picking  
17 out the political one. But they were -- they were -- I was  
18 conveying all of this information.

19 Q. Right. Including the political information?

20 A. Both pieces of information.

21 Q. That's right.

22 MR. FRAM: And by the way, so we don't have to worry  
23 about other issues again, we'd like to move to admit this  
24 exhibit. Again, our spreadsheet shows no objections.

25 MR. STRACH: No objection.

1 JUDGE BLACK: 126 is admitted, Plaintiffs'.

2 MR. FRAM: Okay.

3 (Plaintiffs' Exhibit 126 was admitted.)

4 Q. And do you see the subject line of the e-mail, quote,  
5 "Proposed map for LSC"?

6 A. I do.

7 Q. Okay. So this was a proposal that you could -- to someone  
8 to give to LSC for -- that they could turn into a bill; isn't  
9 that right?

10 A. Well, I can't see the rest of this. I don't know if there  
11 was an attachment to it or -- I'm sure you'll -- we'll get to  
12 that, but --

13 Q. I think we will.

14 A. There you go.

15 MR. FRAM: Why don't we go down there and take a look.  
16 Farther down. No, right up there. I'm sorry. No, it's the  
17 "LSC Bill Draft." There you go.

18 Q. "Dot, bmp," do you recall that, the extension?

19 A. Yeah. It's a bitmap file. I am confused as to why it says  
20 draft number 2, though.

21 Q. But that would have been a bitmap file for LSC; is that  
22 right?

23 A. Yeah, it may have been. Yes. I mean --

24 Q. Okay.

25 A. Well, I apologize. I'm not -- I'm confused as to why I

1 attached number 2. I don't know what -- I don't know what I  
2 was meaning at that time. There should have been a --

3 Q. There might have been another -- I'm sorry?

4 A. There should not have been two of them. There should have  
5 been one file being conveyed to LSC.

6 Q. Okay. But you have -- I think we understand. You have no  
7 reason to doubt at 1:00 in the morning you sent this e-mail and  
8 an attachment over to Senate President Niehaus, Senator Faber  
9 and Chief of Staff Schuler; is that right?

10 A. No, I sent it.

11 Q. Okay.

12 A. And, again, you were pointing out the political indexes. I  
13 mean, they're dealing with hundredths -- the hundredths of a  
14 point. So without seeing what the changes were, my guess is  
15 they were very, very, very minor.

16 Q. Right.

17 A. To move indexes three-one-hundredths or one-one-hundredths  
18 of a point.

19 Q. Right. And in your e-mail at 1:00 in the morning, you  
20 wanted to make sure they had that information. That was the  
21 first thing you included.

22 A. Yeah. I don't -- I wouldn't read anything into the fact  
23 that I put that before the geography. I know the geography was  
24 important. I know the geography was important, because there  
25 were issues with the 3rd Congressional District. Not the

1 number 3, but the third district that was in Lucas County,  
2 Kaptur's district.

3 Q. Okay.

4 A. So the geography here probably is more important than the  
5 one-one-hundredth of a point of -- one rising and one falling,  
6 it looks like.

7 Q. And yet you put that second?

8 A. Like I said, I wouldn't read anything into that.

9 JUDGE BLACK: Can you stay near that microphone.

10 THE WITNESS: I'm sorry.

11 JUDGE BLACK: I'm asking for the two other judges.

12 THE WITNESS: I'm trying to lean back to see this. I  
13 apologize.

14 JUDGE BLACK: Very well.

15 Q. So that's 1:06 in the morning. A few more hours in the  
16 morning. Let's get to 7:44 in the morning.

17 So President Niehaus responds to you?

18 A. I'm sorry. I -- when I lean back, the screen went blank.  
19 So I must have turned it off somehow.

20 JUDGE BLACK: Okay.

21 THE WITNESS: I probably hit it with my knee.

22 JUDGE BLACK: We'll work right on that.

23 THE WITNESS: There must be a button or something that  
24 turns it back on.

25 JUDGE BLACK: Let's see. Who wants to find the

1 button?

2 JUDGE WATSON: It probably can't be found until Monday  
3 morning.

4 THE WITNESS: I'll just push them all.

5 COURTROOM DEPUTY: Now --

6 THE WITNESS: It's back on. It was the last button I  
7 pushed. It was the last.

8 MR. FRAM: Thank you for resolving that.

9 A. I'm sorry. You were asking a question.

10 Q. Yeah. 7:44 AM, Senate President Niehaus sends you an  
11 e-mail. Do you see that? Right?

12 A. Yes. I do see that, yes.

13 Q. And he asks you a question. He says, "Did Whatman sign  
14 off?" Do you see that?

15 A. I do see that.

16 Q. Let's go 12 minutes later, 7:56, I think it was, in the  
17 morning. If we can go down. And you respond, and the first  
18 thing you say is, "Whatman signed off." Do you see that?

19 A. I do see that.

20 Q. Now you talked about geography a bunch, about how you were  
21 moving different populations around concerning Lucas County.

22 Do you see that?

23 A. I do.

24 Q. And do you note the third line of your e-mail to Senate  
25 President Niehaus, saying, quote, "it is fair to note that a

1 good part of Lucas he is picking up is Republican territory"?

2 Do you see that, quote, unquote?

3 A. I do.

4 Q. So you wanted to make sure that morning you told Senate  
5 President Niehaus that Representative Latta would be getting --  
6 a good part of the territory he'd be getting in Lucas County  
7 was Republican; isn't that right?

8 A. Is this -- is this the -- is this from the string before  
9 that we were just talking about where the index has moved two-  
10 one-hundredths of a point, or is this something completely  
11 different?

12 Q. Let's go back on up. Let's go to the top with me.

13 Yeah. You got the index here. You see it is the one where  
14 the -- there's a tiny little difference between those,  
15 two-hundredths of -- only two-hundredths of a point. It fell  
16 only two-hundredths of a point.

17 A. Okay.

18 Q. And then you point out at 7:56 in the morning that it was  
19 fair to note that a good part of Lucas County, and I assume  
20 you're saying Latta is picking up, is Republican territory. Do  
21 you see that?

22 A. I do.

23 Q. You have no reason to doubt you sent that?

24 A. No.

25 Q. Okay.



1 A. But it looks like, as I was asking that this is related to  
2 that previous string, that -- sitting here, I don't recall what  
3 that territory was, but it must have been relatively  
4 insignificant in size if it was just moving indexes two-  
5 one-hundredths of a point. That was just my point.

6 Q. Okay. But it was worth mentioning to Senate President  
7 Niehaus at 7:56 in the morning?

8 A. Well, he had specifically asked about Lucas County in his  
9 e-mail to me, so I was being responsive.

10 Q. Okay. And you understood that to mean he wanted to know  
11 how much of the territory would be Republican territory, didn't  
12 you?

13 A. Well, he was the president of the Senate. He was asking me  
14 a question, so I was going to -- and this was like right before  
15 we got this thing to LSC to go. So I was just providing him  
16 the information that I thought would be relevant, whether it  
17 was geography or political or both.

18 Q. Now, why don't we take a look at Plaintiffs' 127. This  
19 one's September 12, 2011 and at 11:22 in the morning. And this  
20 is entitled "Stivers maps." So it's your recollection this  
21 concerned Senator Widener's suggestions that would affect  
22 Stivers' area 15; is that right?

23 A. I don't see any reference to Widener on here, so I'm --

24 Q. It concerned District 15, though; isn't that right? That's  
25 where Stivers was represented?

1 A. Well, it says "Schmidt 08." I don't know if that -- maybe  
2 that's a typo. So that's nowhere -- that's southwest Ohio.

3 Q. I was going to ask you about that. Let's start with there  
4 are two couplets. There's "Stivers 08" presidential and  
5 "Stivers unified," do you see that, the first two lines right  
6 up there?

7 A. I see those two lines.

8 Q. Okay. And so 08 we already talked about, and it explains  
9 how, under this proposal, under the Stivers' map that you drew,  
10 that Stivers' presidential strength, Republican strength, would  
11 go from 52.64 to 53.31. Do you see that?

12 A. Yes, yes.

13 Q. And that his unified index would go from 55.02 percent  
14 Republican to 55.72 percent Republican. Do you see that?

15 A. I do.

16 Q. Okay. Now, you're sending this e-mail to Mr. Whatman; is  
17 that right?

18 A. Yes.

19 Q. You wanted Mr. Whatman to know that District 15 was going  
20 to be more strongly Republican under the map you were sending;  
21 isn't that right?

22 A. I'm not sure what I was conveying. Because, obviously, the  
23 flip side of this side I didn't include. Obviously, if I was  
24 trading territory between two districts to achieve whatever  
25 goal I was trying to achieve, one district would go up, the

1 other one would go down. But I'm not mentioning which one was  
2 going down, so I'm not sure what -- I don't recall what I was  
3 referring to here with "Stivers maps."

4 Q. So there's no reference here to trading territory in this  
5 e-mail?

6 A. Well, there had to be a territory change, or else the  
7 indexes wouldn't have changed.

8 Q. But there was some kind of a district drawing line. I  
9 understand you, sir. But you're telling Mr. Whatman on Monday  
10 morning, for Stivers' district --

11 Which we can agree is 15; correct?

12 A. Yes.

13 Q. Okay. -- that under both indices that it's going to become  
14 more Republican. You're telling Mr. Whatman that?

15 A. Yeah. As I mentioned before at the beginning, I mean, the  
16 president, I'm sure, was very interested in what the Speaker of  
17 the United States House of Representatives thought about the  
18 map. Whether -- what he did with that information was his  
19 decision in the legislative process, but I didn't -- I couldn't  
20 pick up the phone and call Speaker Boehner.

21 So this was the kind of way to which I would send  
22 information or receive suggestions, and then we would have to  
23 make a decision in the legislative process if it was something  
24 worth pursuing or just say, no, we're not doing that. So this  
25 is just another one of those information exchanges.

1 Q. Right here --

2 A. Yeah.

3 Q. -- I'll just take "Stivers 08" Presidential, that change  
4 was less than one point, do you see that, 52.64 to 53.31? Do  
5 you see that?

6 A. I do.

7 Q. And for the unified index, again it's less than one point:  
8 55.02 to 55.72. Do you see that?

9 A. Yeah, I still see it.

10 Q. So when a political index shifted by less than one point,  
11 you still wanted to make sure that Mr. Whatman was informed;  
12 isn't that right?

13 A. Yeah. Everybody cared about -- like I said, from the  
14 beginning everybody wanted to see maps and indexes. That's  
15 what the press asked about. That's what all of the citizens  
16 groups asked about. That's what members asked about, both in  
17 the legislature and in Congress. That's what people asked  
18 about. So it doesn't surprise me that I would have been  
19 sending that type of information to people.

20 Q. Now, the bill wasn't made public till September 13, that  
21 Tuesday; right?

22 A. Again, I don't recall that date. I think you mentioned  
23 that date. It sounds right.

24 Q. Before the bill was made public were you sending e-mails to  
25 members of the press indicating the political scorings of

1 individual districts of less than one point? To the press.

2 A. I wasn't, but other -- others might have been.

3 Q. Might have been. Do you have any basis for saying that  
4 speculative thought?

5 A. Well, so if the bill at this point is at LSC, we are  
6 probably preparing -- in the legislature they are preparing all  
7 of those press documents and talking points and all of the  
8 standing requests from the press for that type of information.  
9 Many times it is shared with the press.

10 So while I don't recall -- but I'm sure I would have been  
11 providing that information to the president of the Senate so he  
12 had it at his disposal if that's what he chose to do with it.

13 Q. But as of this date, before it's gone public, you're  
14 sending Mr. Whatman an e-mail with changes in political scoring  
15 in District 15 with less than one percent change; isn't that  
16 correct?

17 A. Yes.

18 MR. STRACH: Your Honor?

19 JUDGE BLACK: Yes.

20 MR. STRACH: May I inquire as to how much more cross  
21 there will be? I'm getting concerned. We had to do a major  
22 imposition on Mr. DiRossi to get him here today. I'm really  
23 hoping we don't have to bring him back Monday. I'm going to  
24 have little, if any, redirect, and I'm hoping even if we have  
25 to stay a little later that we could get it done. Our direct

1 was only about an hour and 20 minutes. So I would just like to  
2 inquire.

3 JUDGE BLACK: How are you coming on cross?

4 MR. FRAM: I've got a little ways to go.

5 JUDGE BLACK: I'm sorry?

6 MR. FRAM: I've got a little ways. Let me look at  
7 this outline here.

8 Well, we're through moving through the material, but -- and  
9 I tried to delete some things from the direct so as not to be  
10 repetitive, but I'm --

11 JUDGE WATSON: How about let's do it in the next ten  
12 minutes?

13 MR. FRAM: I won't be -- I can do ten more minutes,  
14 but I do have more than ten minutes of questions.

15 JUDGE BLACK: Okay. And you don't a clear sense of  
16 how much more you have?

17 MR. FRAM: Obviously, part of it depends on the  
18 answer, but it will be more than ten. So I don't know what  
19 to --

20 JUDGE BLACK: 20, 30, 40, 50? Ballpark. I'm just  
21 trying to figure it out.

22 MR. FRAM: I'm thinking within 50. 20 is probably  
23 unrealistic. Probably could be. It could be an hour.

24 JUDGE BLACK: I inquired.

25 MR. STRACH: Your Honor, we would request that we stay

1 and get it done this evening. Mr. DiRossi is working on the  
2 State's transportation budget. He's got some very significant  
3 duties that he's got to get done next week. Being here today  
4 was a very significant imposition on his duties. We would  
5 request that we stay and get it done today.

6 JUDGE BLACK: The request is noted.

7 MR. STRACH: Thank you, Your Honor.

8 JUDGE BLACK: Have at it.

9 MR. FRAM: I'll proceed, Your Honor.

10 Q. Why don't we take a look at Plaintiffs' Exhibit 128. This  
11 is an e-mail. It's a longish chain, so I'm not going to -- and  
12 I will move things along and not go through the whole document.  
13 It's dated September 12, 2011, and it starts out with an e-mail  
14 from you to Mr. Kincaid. Do you see that?

15 A. I do, I do.

16 MR. FRAM: And, actually, we can move this forward  
17 even faster. I'd like to move for its admission. There are no  
18 objections.

19 MR. STRACH: No objection.

20 JUDGE BLACK: Very well. It's admitted.

21 MR. FRAM: Thank you, Your Honor.

22 (Plaintiffs' Exhibit 128 was admitted.)

23 Q. And you tell Mr. Kincaid that you're looking for a sign-off  
24 on Speaker Batchelder and President Niehaus on the Stivers'  
25 edit. Do you see that?

1 A. I do.

2 Q. We've been talking about that it's Stivers' district. Do  
3 you recall that?

4 All right. Why don't we take a look at page three of the  
5 document at 9:28 in the evening on Monday, September 12. Do  
6 you see Mr. Whatman sends you an e-mail at that time asking --  
7 making a last-minute request in changing the map? Do you see  
8 that?

9 A. I do.

10 Q. I think in your direct testimony you referenced a change  
11 related to the Timken headquarters in District 16; isn't that  
12 right?

13 A. Yes.

14 Q. Do you remember, in fact, getting, sort of the night before  
15 the bill's going to be introduced, a request to change the map  
16 from Mr. Whatman?

17 A. You mean during the earlier questioning?

18 Q. Right now. Do you remember back as things were happening,  
19 the night before the bill was to be introduced, Mr. Whatman  
20 comes in with a last-minute change regarding the Timken  
21 headquarters?

22 A. I remember it being -- when I spoke earlier, I remembered  
23 it being late. I didn't realize how late it was until I just  
24 saw the e-mail.

25 Q. So this is generally consistent with your recollection



1 that's how it all went down?

2 A. I mean, this is giving me a little more clarity of the  
3 exact timeline, but I remember it being a late request dealing  
4 with the Timken headquarters.

5 Q. And if we can go down to the next e-mail after this one  
6 from Mr. Kincaid. And he asks -- do you see where he asks you,  
7 he says, quote, "Ray, slash, Heather do you want me to do it  
8 and send the file over, or will y'all do it?" Do you see that?

9 A. I do.

10 Q. If you go down to the next e-mail about a minute later you  
11 responded. Do you see that? Quote, "You do and get  
12 equivalence file to us asap."

13 A. I do.

14 Q. Do you recall asking Mr. Kincaid to make this change and  
15 send it to you with a new equivalency file? Is that right?

16 A. I do.

17 Q. And equivalency file, it's another way of saying a block  
18 assignment file; isn't that right?

19 A. Generally, yes.

20 Q. You could take that, put it in Maptitude, generate a new  
21 map, send it over to LSC; isn't that right?

22 A. Well, there would need to be -- there's a few steps that  
23 you're skipping there. But it would have to be reviewed. I'd  
24 have to review. We'd have to run it by the president and the  
25 Speaker and make sure they were okay with it.

1 But as far as transporting the information to us, I  
2 obviously didn't have the time do it. So I asked him to send  
3 it to me and then I could review it to make sure that we felt  
4 we were okay with it.

5 Q. As a tactical matter you need to have the block equivalency  
6 file, a block assignment file, load it into Maptitude and send  
7 it over to LSC. I understand there are approvals you need, but  
8 that's the technical flow, isn't it?

9 A. Well, sending it to LSC is not part of the technical  
10 process of Maptitude. I mean, from my process, I didn't have  
11 time. This is right before the bill rolled out. We were  
12 probably engaged in so many different -- preparing press  
13 documents, getting ready to let members know, all the members  
14 of the General Assembly know, and rolling out the bill, that I  
15 said, "You do this. You send it to me."

16 That way I knew I didn't have to spend that time doing it.  
17 I could review it. I could get feedback if I thought it was  
18 okay, and then I could get approval from the ultimate deciders,  
19 which were the president and the Speaker.

20 Q. So Mr. Kincaid had the materials, the computer files and  
21 the software so he could do this? You could ask him to do it;  
22 right?

23 A. Every member of the Ohio public had access to the Common  
24 Unified Redistricting Database. That was what the task force  
25 was supposed to do, get that information out to every member of

1 the public.

2 Q. But he had the computer files for the maps you were working  
3 on, so he could send you a revision at that late hour; isn't  
4 that right?

5 A. Well, a lot of people did.

6 Q. Right. But including Mr. Kincaid?

7 A. Yes.

8 Q. So for this change he had the PIN; isn't that right?

9 A. Pardon.

10 Q. For this change he had the PIN?

11 A. No. This is no different than he was making a suggestion.

12 He was getting it to us. We would have to review it and we  
13 would decide -- well, the president and the Speaker would  
14 decide whether or not it was going to be put into the bill.

15 Q. Okay. So it wasn't clear whether you were going to say yes  
16 or no. He was going to provide a suggestion; is that right?

17 A. Right.

18 Q. Okay. Let take a look at the -- let's go down a little  
19 bit. And then -- hold on. Let's see now.

20 So at 10:42 in the morning -- in the evening, I'm sorry --  
21 in the evening Mr. Kincaid wrote back "File exporting now." Do  
22 you see that?

23 A. I do.

24 Q. So he did, in fact, send it to you, the equivalency file;  
25 isn't that right? That's the file he's talking about; isn't

1 that right?

2 A. (No response.)

3 Q. Okay.

4 JUDGE BLACK: Was that question answered?

5 Q. Was that answered?

6 A. You're asking if he sent me an e-mail at 10:42 saying "File  
7 exporting now"?

8 Q. And that that was an equivalency file?

9 A. Yes.

10 Q. Okay.

11 A. Sorry.

12 Q. And about a minute later, we go down, and you thanked him.  
13 And then -- and then -- and then at 10:55 Mr. Kincaid sends you  
14 the changed file. Do you see that?

15 We can go down. We can see the attachment for LSC draft  
16 bill number 3.

17 A. Okay. I -- I see that in the e-mail, your highlighting.

18 Q. Any reason to doubt you got that?

19 A. I don't recall it, but I'm -- I'm sure it seems logical in  
20 the string.

21 Q. And let's go down to the next morning, Tuesday, September  
22 13, 2011 at 6:11 AM, e-mail from Mr. Whatman to Mr. Kincaid,  
23 yourself, Ms. Mann, where he says, quote, "Stellar work on  
24 short notice. Hope I didn't mess up making a bill."

25 Any reason to doubt that he didn't thank everybody for

1 their stellar work on short notice on the day that, in fact,  
2 the bill was introduced?

3 A. Are you asking me if that's what he said in his e-mail?

4 Q. Any reason to doubt that he sent it?

5 A. That he sent that e-mail?

6 Q. Yes.

7 A. No, I -- no. I see it.

8 Q. All right. Okay.

9 A. I'm not sure what he means by the fact that it came back as  
10 a revised, if that means that we, when we were doing our check,  
11 had made some type of change to it that then had to go back to  
12 him for his thoughts.

13 Q. You did put Timken in 16, didn't you?

14 A. As it turns out, not successfully. Parts of the  
15 headquarter were put in 16, but parts of them were not.

16 Q. But parts did go in?

17 A. Some parts did and some parts didn't.

18 Q. Okay.

19 A. Can you -- I'm sorry. Could you go back to the -- I can't  
20 scroll or anything. Can you go back up to the e-mail where I  
21 said you make the changes and get to us?

22 Q. All right. Where it says "You do," that one?

23 A. "You do and get to us," maybe, I think is what I said.

24 Q. Yeah, yeah.

25 A. There it is. September 12th, 9:36.

1 Q. That's right.

2 A. You can see a lot of time passed between -- as I said, I  
3 said: You do it and get to us. That gave me -- while he did  
4 that work, I had the ability to check in with President  
5 Niehaus, tell him what was going on, tell him what we were  
6 hoping to see, and get some feedback from him.

7 So that's -- that's why I asked him to do it so I didn't  
8 have to do it and then start that process. I mean, at this  
9 point literally every minute was very, very valuable.

10 Q. And then you could convey all this to Senate President  
11 Niehaus; right?

12 A. Yeah. Well, I was doing that before I got the file --

13 Q. Right.

14 A. -- it seems, from the exchange here.

15 Q. Okay, okay. I did have one question. If we could go back  
16 to Plaintiffs' Exhibit 124. Let's take just a quick look at  
17 Senator Faber's e-mail address that you used. Do you see that?

18 A. I do.

19 Q. "Faber@bright.net," that's not an official Ohio State  
20 e-mail address, is it?

21 A. No.

22 Q. That's his personal address. If we look at 125, Senate  
23 President Niehaus' address at 9:25 in the morning, he's sending  
24 it from "@fuse.net." Do you see that?

25 A. I do.

1 Q. It's also a personal e-mail address. So that's what you  
2 were using?

3 A. (Nods head up and down.)

4 Q. And they were using it with you, their personal addresses  
5 over that weekend?

6 A. Yes.

7 Q. Okay. Let's change subjects just a little bit.

8 Now, in Maptitude, we talked about how you have this  
9 election results data in Maptitude. And do you recall  
10 receiving that data from Mr. Clark Bensen as the source of the  
11 political information you used in Maptitude?

12 A. Well, I think most of the -- most of the data came from the  
13 Common Unified Redistricting Database that we talked a little  
14 bit about. And then that data, as was not unlike the previous  
15 decade, had some deficiencies in it. And so there was a  
16 computer -- somebody who was much more savvy with computers  
17 than I -- Clark Bensen -- who was able to refine that data to  
18 make it -- to make it more workable.

19 Q. Now, he included -- the data you received from Mr. Bensen,  
20 that included elections other than those that were in the OCURD  
21 database; isn't that right?

22 A. I believe the unified -- the five races that I had selected  
23 that I wanted to use for the unified database, I don't recall  
24 if any or all of them were in the Common Unified Redistricting  
25 Database. So the ones that were not, if any were, would have

1 had to be added in, and I possessed the technical knowledge to  
2 do that.

3 Q. So Mr. Bensen provided you information of those additional  
4 elections; is that right?

5 A. I don't recall specifically what he did. But at some point  
6 we conveyed to him what we wanted in the data, and he was able  
7 to do it.

8 Q. Okay. And Mr. Bensen, he was a consultant for the  
9 Republicans in Washington, D.C.; isn't that right?

10 A. I specifically don't know. I just remember him being  
11 offered -- he was somebody that I had used for this same type  
12 of service in the previous decade. And I found him to be very  
13 reliable and very useful in getting the data in a workable  
14 format. So it was made clear to me that he was available to  
15 provide that service in this decade, and so I used his services  
16 again.

17 Q. And the person who made it clear to you that he was  
18 available to provide services in this decade, that was Mark  
19 Braden, wasn't it?

20 A. You know, I don't specifically remember if it was him.

21 Q. Was it someone from Washington, D.C. Republicans who made  
22 it clear to you?

23 A. Sitting hearing at the moment, I don't specifically recall  
24 who it was.

25 Q. So this fellow just showed up with a bunch of election



1 data, but you don't recall how you got it connected?

2 A. No. I said I've known him for the previous decade, since  
3 2001, so -- there was some conversation.

4 Again, things were happening very fast. Somebody said,  
5 "Clark is available again to help if you have data issues."  
6 And I said, "Oh, yes, I remember Clark," and so we were able to  
7 connect.

8 Q. Now, you mention you used five elections for your unified  
9 index.

10 A. Yes, both decades.

11 Q. So we'll talk about the 2011 decade. So you have the --  
12 one of the -- let's see if I got the five right. Do you  
13 remember the five?

14 A. I will do better hearing you say them than me telling. I  
15 can remember a few of them. I remember a few of them.

16 Q. 2004 presidential?

17 A. That was definitely one of them.

18 Q. 2006, auditor?

19 A. I believe that was one of them.

20 Q. 2006, Attorney General?

21 A. I don't specifically recall. There's another presidential  
22 one in there.

23 Q. 2008, Presidential?

24 A. Yes.

25 Q. And 2010, Governor?

1 A. That sounds right, yes.

2 Q. So there's four you remember and there's one you're not  
3 sure about?

4 A. That's sitting here at the moment, yeah.

5 Q. Okay. So it might have been 2006 attorney general, but  
6 you're not sure.

7 It did not include any 2002 elections, did it?

8 A. Yeah. Obviously, the further you go back, the geography  
9 changes, obviously. Anybody who knows boards of election knows  
10 the geography is constantly changing. Boards of elections in  
11 cities are constantly re-precincting, and so the further you go  
12 back, the more where your data doesn't line up with your  
13 geography.

14 Q. Right.

15 A. So I think I intentionally did not want to go back to 2002.

16 Q. Okay. So you didn't include that.

17 MR. FRAM: Why don't we put Plaintiffs' Exhibit 115 on  
18 up.

19 Q. This is a DiRossi-produced document that we used, sir. The  
20 number is at the very, very bottom. If we could just look at  
21 that, that you produced in response to discovery in this case  
22 from your files. Okay?

23 Do you recognize this document?

24 A. I do recognize it. I think it was in color when I produced  
25 it, so -- it's black and white here.

1 Q. All right.

2 A. But I'm pretty sure I recognize it.

3 Q. In fact, you're the author of the document?

4 A. I believe so.

5 Q. Okay. And you create it after HB 319 was passed; is that  
6 right?

7 A. You know, I remember you or one of your colleagues asking  
8 me about this in the deposition. Sitting here, I apologize, I  
9 can't remember if this is from 319 or 369, but it was one of  
10 the documents that was created after the adoption of one of  
11 those maps.

12 Q. Why don't we put up from your deposition if it will help  
13 you.

14 A. Oh, great. Thank you.

15 Q. We can put that on the screen.

16 MR. FRAM: 236, lines 22 through 23. See the whole  
17 piece of it so the witness can see it in context, please.

18 THE WITNESS: Yeah. Thank you. Thank you.

19 MR. FRAM: Why don't we just go down. We're 236.  
20 Yeah, from 22 all the way down to, say, 25.

21 A. As you know from the deposition, there were a couple  
22 different documents that I created various places that were --  
23 that had indexes on them, and so this one just says this  
24 document was created. I mean, it's --

25 Q. Okay. Is Exhibit 22 in your deposition?

1 A. Okay.

2 Q. We can go up to that and see where 22 is introduced.

3 Are you not sure? You're sure you created it; you're just  
4 not sure of the timing. Is that what you're saying?

5 A. I mean, if you're saying you showed me that as an exhibit  
6 in the deposition and I said it was created --

7 THE WITNESS: Oops. You just scrolled off a page.

8 A. -- created after 319 was adopted, that helps refresh my  
9 memory --

10 Q. Okay.

11 A. -- that that's when it was done, afterwards.

12 MR. FRAM: By the way, I'd like to move to have this  
13 admitted. There are no pretrial objections.

14 JUDGE BLACK: Move to admit 115 or 236?

15 MR. FRAM: So that's -- yeah, that's Plaintiffs' 115.

16 JUDGE BLACK: You're moving to admit Plaintiffs' 115?

17 MR. FRAM: Yes, yes, Your Honor.

18 JUDGE BLACK: Is there an objection?

19 MR. STRACH: No objection.

20 JUDGE BLACK: Admitted.

21 (Plaintiffs' Exhibit 115 was admitted.)

22 Q. I want to look at some of these scorings. You see that  
23 PVI, what you call D+1 R+1, column on the right?

24 A. I do.

25 Q. And you see there's a few lines about what those things

1 mean at the bottom underneath the chart. Do you see that?

2 And let's take the second chart. The first one's the old  
3 map, and the second one's the 16 district map. Do you see  
4 that?

5 16 district map, you understand this to be 319?

6 A. It sounds like that's, yes, 319. After the passage of 319.

7 Q. After the passage. And it says R+5, quote, unquote, "R+5  
8 is likely Republican." Do you see that?

9 A. Yeah. So as we talked about before, this PVI or the R+1,  
10 D+1 is not something that I was able to generate. So this is  
11 information that would have been given to me after the map had  
12 been, you know, made available, and I would have taken that and  
13 then just literally typed it in here. So I'm just kind of  
14 regurgitating it.

15 And again, the reason for it was, I wanted to use this  
16 unified average. All these other things on here were all the  
17 other things that people were talking about, including this PVI  
18 stuff. So I just wanted to have it all on one sheet afterwards  
19 so, when I was inevitably asked questions about it, I didn't  
20 have to have nine different sheets of paper. So I was just  
21 trying to consolidate the stuff.

22 Q. Okay. And I think you said the PVI information, that was  
23 favored by certain national Republicans; is that right?

24 A. Well, I think not just Republicans but national Republicans  
25 and Democrats use that system, or whatever it is.

1 Q. You got this PVI information from national Republicans,  
2 didn't you, not national Democrats?

3 A. I probably would have got them from Adam.

4 Q. Adam Kincaid?

5 A. Yes.

6 Q. All right. And the phrase at the bottom R+5 is likely  
7 Republican. Now, you wrote -- you're the author of this  
8 document?

9 A. Well, I am the author of the document and I created this  
10 spreadsheet, but some of the information that's on here I am  
11 just retyping from other sources. And these R+5 is this, up to  
12 R5 is that, you know, that -- those are designations of a  
13 system that I cannot create or duplicate or know how it works.  
14 So I am just probably regurgitating something that had been  
15 said or that one of the interest groups had said.

16 Q. But you didn't regurgitate something you thought was wrong,  
17 did you?

18 A. Well, I would say I used the unified average. That's the  
19 one I wanted to use. But sometimes you're swimming upstream  
20 and too many other people --

21 Q. Right.

22 A. -- using something else, so -- I don't even know enough  
23 about it to say whether it is right or wrong.

24 Q. Okay. And you say a lot of people had questions that they  
25 want this information?

1 A. Yes.

2 Q. In fact, that included members of the Senate leadership  
3 team in Ohio; correct?

4 A. Yes.

5 Q. They wanted this political information; correct?

6 A. They -- as I said, everybody wanted this information, so  
7 that would include them. They were no different.

8 MR. FRAM: Okay. Why don't we put Plaintiffs' Exhibit  
9 56 up on the screen, please.

10 Q. I think you mentioned before you'd have two computer  
11 screens going when you were working on maps. One would have a  
12 map, and the other would have statistics and data on it; is  
13 that right?

14 A. That's how my computer was set up.

15 Q. I want to just look at this. Some of the data that you're  
16 seeing in this right table --

17 MR. FRAM: By the way, not only is there no objections  
18 to this exhibit, it's actually part of a stipulation we have on  
19 these Maptitude.

20 JUDGE BLACK: You're moving to admit it?

21 MR. FRAM: Yes, Your Honor.

22 JUDGE BLACK: Any objection?

23 MR. STRACH: No. It's subject to the stipulation.

24 JUDGE BLACK: Admitted subject to the stipulation.

25 (Plaintiffs' Exhibit 56 was admitted.)

1 Q. Does some of this data on the right side look familiar to  
2 you in terms of the kind of data that you would have on the  
3 screen? I'm not saying the format of the table is the same  
4 because we put it all on one screen, because you have two  
5 screens. But does the data itself look familiar to you?

6 A. Could you go back to the first one.

7 Obviously, this is -- just kind of this layout is not the  
8 way I looked at it, I think, as you said, or it's not how I was  
9 set up. I mean, I -- I mean, there -- there's like 30  
10 different data sets on here. I didn't have anywhere near that  
11 amount, so by default, a number of these things were not things  
12 that I was looking it. So if you want to go through them  
13 individually --

14 Q. Why don't we start at the top. "ID," do you see 10? Do  
15 you see that?

16 A. Yeah.

17 Q. You're saying that's for District 10, this data?

18 A. You know, I -- I believe that's what that is, yes.

19 Q. Okay.

20 A. Yeah.

21 Q. Okay. Why don't we take a look at page four. If we can go  
22 down to the row that says "%" --

23 MR. FRAM: Yeah. There you've got it. Thank you.

24 Q. -- "%" EA12, underscore, RV." Do you see that?

25 A. I do. It's highlighted on my screen.



1 Q. I think you said the unified index was one of the pieces of  
2 data you would be able to have when you looked at maps in  
3 Maptitude; is that right?

4 A. That was one of the number of data sets that I had on my  
5 left screen.

6 Q. And, in fact, the -- you can call it a code that you had  
7 for the unified index, was that % EA12, underscore, RV?

8 A. Yeah. I guess I never understood why EA12 was the  
9 designation, but I was told that was -- "Ray, that's your  
10 unified index."

11 Q. There you go. So if you look at one of these Maptitude  
12 data tables and you find that row, you find the unified index  
13 scoring for that district; isn't that right?

14 A. Well, again, I didn't set it up this way, but as I said --  
15 I think I've said repeatedly now that that was one piece of  
16 information that was constantly on my screen, along with all of  
17 the other ones that I listed.

18 Q. I understand. Constantly on your screen.

19 MR. FRAM: You can take that down.

20 Q. In drafting the congressional district map in 2011, I think  
21 you talked about the pairing of different incumbents. Do you  
22 recall that testimony?

23 A. I do.

24 Q. And you talked about the pairings of Representatives Turner  
25 and Austria. Do you recall that?

1 A. I do.

2 Q. The pairings of Representatives Kucinich and Kaptur?

3 A. I do.

4 Q. And the pairings of Representative Sutton and Renacci. Do  
5 you recall that?

6 A. I do.

7 Q. And any time was there any conversation to pairing Sutton  
8 and Kucinich instead of Kucinich and Kaptur?

9 A. On the Democratic side for pairings there was a lot of  
10 conversations, and I was part of many of them, about which two  
11 to pair, and so I'm sure Kucinich and Sutton were discussed.

12 Q. Do you recall pairing Kucinich and Sutton yourself in a  
13 map?

14 A. They were not paired.

15 Q. They were not.

16 A. I'm sorry.

17 Q. Did you ever draw up even a proposed map pairing Kucinich  
18 and Sutton yourself? Did you ever do that?

19 A. I don't specifically recall that, but I do remember  
20 exploring all of those options, because I remember having  
21 conversations about why I thought that was a very bad idea.

22 Q. Okay.

23 A. Yeah. Congressman Kucinich in that pairing, if I may,  
24 was --

25 You know, to pair Representative Sutton, Congresswoman

1 Sutton from Summit County, a significant portion of the  
2 district of Summit County that wasn't in CD11 would need to be  
3 in there.

4 And as I talked about all of the concerns about  
5 Representative Fudge's district, it really wasn't so much, as  
6 we all know in this room, that for Congress you don't have to  
7 live in the district to run for the district. And where Dennis  
8 Kucinich was really popular, where he was mayor and where he  
9 had like this cult-like following was in western Cleveland.  
10 And if you put him in a district with Sutton that was a  
11 majority of Summit County, whether he was in that district or  
12 not, the concern was he would then run against Fudge, because  
13 that's where his constituents -- that's where his base of  
14 support was.

15 So it wasn't so much about just physically put two and they  
16 were locked in there. Wherever you paired Kucinich, it was  
17 really where his old district was, where the concern was he  
18 would run. And that's why nobody wanted to risk it that he  
19 would run against Congresswoman Fudge. I'm pretty sure he was  
20 quoted in the paper extensively saying he was running no matter  
21 who he was paired against.

22 MR. FRAM: And just at this particular spot my  
23 foundation and hearsay -- I know it's a standing objection --  
24 would be applicable to everything in the last response.

25 JUDGE BLACK: Very well. We'll make a note of it.

1 Q. In drawing districts in 2011 for either map, HB 319 or 369,  
2 did you calculate compactness scores for the districts?

3 A. No.

4 MR. FRAM: Okay. If we could put Plaintiffs' Exhibit  
5 454, D3 I think it is, page 28. I think it should be the map  
6 of District 1. There you go.

7 Q. Did you ever analyze the compactness of a district that put  
8 together a piece of Hamilton County and Warren County?

9 A. No.

10 MR. FRAM: We can take that down.

11 Q. Now, you mentioned a change in proposed District 3 related  
12 to a residence of Ms. Kilroy, I think it was; is that right?

13 A. Yes.

14 Q. And I think you said that change did get made where she was  
15 taken out the district; isn't that right?

16 A. Yes.

17 Q. That affected a pretty trivial number of voters, didn't it?  
18 About 800; isn't that right?

19 A. Yes. Congress -- well, now-Congresswoman Beatty, then not  
20 Congresswoman Beatty, felt that it created an issue with former  
21 commissioner or former congresswoman --

22 I just lost the name. I'm sorry. The Franklin County  
23 commissioner.

24 If she was physically out of the district, even though she  
25 could still run against her, it would create some type of

1 political advantage for Joyce Beatty to say that she doesn't  
2 even live in the district.

3 So you are absolutely right. It may have been slightly  
4 less than 800 people, but it was achieving a goal that  
5 now-Congresswoman Beatty wanted to achieve.

6 MR. FRAM: Motion to strike subject to my standing  
7 objection.

8 JUDGE BLACK: Very well.

9 A. You asked me the question.

10 Q. I think you said Mr. Braden had visited the hotel room at  
11 the DoubleTree more than one time; isn't that right?

12 A. A few times.

13 Q. Yeah.

14 A. I said a few times, and I remember you said "More than  
15 once," which is a few.

16 Q. A few, a few. More than twice?

17 A. Yeah.

18 Q. More than three times?

19 A. Probably.

20 Q. More than five times?

21 A. I wouldn't -- I wouldn't feel comfortable saying that  
22 number.

23 Q. Between three and five?

24 A. That seems right.

25 Q. You weren't in court, I don't think, on Monday. We only

1 asked you to join us, I think, yesterday to be here today. But  
2 I don't think you, therefore, were able to see Mr. Braden's  
3 opening statement. I'd like to put that on the board. It's  
4 page 39 in the transcript.

5 And I draw your attention to where he says that, quote,  
6 "Legislation has sometimes been described as a sausage-making  
7 process. This is a legislative process. Sometimes sausage  
8 making is unattractive." Do you see that?

9 A. I do.

10 Q. Okay. So were the sausages for HB 319, they were made in  
11 Room 601 of the DoubleTree; isn't that right?

12 A. Well, that's where I was working out of, but conversations  
13 between the principals were happening in the statehouse, they  
14 were happening on cellphones, they were happening in people's  
15 districts, they were happening all over. I mean, that's where  
16 the decisions were being made. I was just functionally  
17 operating the stuff and making suggestions based on the  
18 impact -- input I was getting.

19 Q. So per your role in the process, you were making sausages  
20 in the bunker; isn't that right?

21 A. Well, I'm not going to say I was making sausages.

22 Q. Well, making -- if creating --

23 A. I took this very seriously. I mean, I had been involved in  
24 this the previous decade.

25 Q. Right.

1 A. And I felt that -- you know, I was one of the only people  
2 on Capitol Square that had been through this for the previous  
3 decade, so I felt the sense like I needed to do this again.  
4 And forget the district mapping. Just the logistics that the  
5 State had to go to to be ready to do this nobody knew, and I --  
6 I mean, so I took -- I took it very seriously.

7 Q. I understood you took it seriously, and you took it  
8 seriously in Room 601; isn't that right?

9 A. Well, for the first -- for the first bill, 319, I was in  
10 601. For the other one I was in the statehouse, and that's the  
11 one we were working with the Democrats on.

12 MR. FRAM: All right. Move to strike on the "working  
13 with the Democrats," but other than that, I have no further  
14 questions.

15 JUDGE BLACK: Very well. Give us just a moment.

16 (Judges confer privately.)

17 JUDGE BLACK: Redirect, if any?

18 MR. STRACH: Just one or two questions.

19 JUDGE BLACK: One or two?

20 MR. STRACH: Very quick. I promise.

21 JUDGE BLACK: Lawyers tell me two questions, and then  
22 question number nine I become agitated.

23 A couple questions. Do whatever you like. We're going to  
24 stay until you're done.

25 MR. STRACH: Thank you, Your Honor. I'm grateful for

1 that. I really appreciate that.

3 REDIRECT EXAMINATION

4 BY MR. STRACH:

5 Q. Mr. DiRossi, just speaking of Congressional District 3,  
6 which was just mentioned in your testimony with Mr. Fram, do  
7 you recall, is --

8 Congressional District 3 is in Franklin County; correct?

9 A. Yes, it is.

10 Q. And Franklin County is split three different ways between  
11 congressional districts; is that correct?

12 A. In the last map it was, in 2001 and in 2011, yes.

13 Q. Do you recall why it was split three different ways in this  
14 map?

15 A. Yes. So there -- I forgot to mention that. There were  
16 specific requests from the Columbus business community --

17 I mean, it's the Columbus partnership, I think is what they  
18 call themselves.

19 -- specifically saying that they wanted to have members of  
20 both the Republican and Democratic delegations in Franklin  
21 County so that they could always have somebody to go to that  
22 was in the majority, and it made sense for them to have that.  
23 So we didn't want to split it four ways and we didn't want to  
24 split it two ways. We wanted to keep it the way it had been  
25 and achieve that with a new third.



1 Q. And was that in the form of a letter?

2 A. I am pretty sure they sent a letter to that effect.

3 MR. STRACH: Okay.

4 Thank you, Your Honor. No further questions.

5 JUDGE BLACK: Very well.

6 MR. STRACH: I doubled up on you. I'm sorry.

7 JUDGE BLACK: Sir, number one, you have survived.

8 Number two, you are free to go. And number three, I know your  
9 order of -- you weren't expecting to testify today and you made  
10 a major league effort to be here today, and on behalf of the  
11 Court and the community, I thank you.

12 THE WITNESS: Well, thank you very much.

13 THE COURT: You're free to go.

14 THE WITNESS: Thank you.

15 (Witness excused.)

16 JUDGE BLACK: Are we prepared to adjourn for the  
17 weekend?

18 From the plaintiffs' perspective?

19 MR. FRAM: We are, Your Honor.

20 JUDGE BLACK: From the defense?

21 MR. STRACH: Yes, sir, Your Honor.

22 JUDGE BLACK: From the intervenors?

23 MR. LEWIS: Yes, sir.

24 JUDGE BLACK: It's unanimous. We're adjourned for the  
25 weekend. See you at 9:00 on Monday.

1 COURTROOM DEPUTY: All rise. Court is adjourned.  
 2 (At 5:27 PM, the trial was recessed, to be continued on  
 3 Monday, March 11, 2019, at 9:00 AM.)

4 - - -

5 MISCELLANEOUS

6	Plaintiffs Rest .....	143
7	Defendants' Evidence .....	145

8 - - -

9 I N D E X O F W I T N E S S E S

10 PLAINTIFFS' WITNESSES: PAGE

11	WENDY K. TAM CHO	
12	Cross-Examination by Mr. Tucker .....	4
13	Redirect Examination by Mr. Subhedar .....	123

14 DEFENDANTS' WITNESSES: PAGE

15	RAYMOND E. DiROSSI	
16	Direct Examination by Mr. Strach .....	145
17	Cross-Examination by Mr. Fram .....	206
18	Redirect Examination by Mr. Strach .....	288

19 - - -

20 E X H I B I T S

21 EXHIBIT NUMBER: ADMITTED

22	Joint Exhibits 1-31 .....	135
23	Plaintiffs' Exhibit 56 .....	279
24	Plaintiffs' Exhibit 89 .....	122
25	Plaintiffs' Exhibit 115 .....	276
26	Plaintiffs' Exhibit 119 .....	227
27	Plaintiffs' Exhibit 124 .....	240
28	Plaintiffs' Exhibit 125 .....	243
29	Plaintiffs' Exhibit 126 .....	252
30	Plaintiffs' Exhibit 128 .....	263
31	Plaintiffs' Exhibit 428 .....	122
32	Plaintiffs' Exhibit 442 .....	122
33	Plaintiffs' Exhibit 581 .....	244

E X H I B I T S (Continued)

<u>EXHIBIT NUMBER:</u>	<u>ADMITTED</u>
Intervenors' Exhibit 5 .....	122
Intervenors' Exhibit 72 .....	198
Dr. Cho's report from Pennsylvania League of Women Voters Case .....	122
Dr. Cho's Pennsylvania trial testimony .....	122
All exhibits listed in Amended Appendix L of ECF 237 were conditionally admitted .....	135
Plaintiff's designations and counter-designations for depositions listed in Appendix A of ECF 230-1 .....	136

- - -

C E R T I F I C A T E

I, Luke T. Lavin, RDR, CRR, the undersigned, certify  
that the foregoing is a correct transcript from the record of  
proceedings in the above-entitled matter.

s/Luke T. Lavin  
Luke T. Lavin  
Official Court Reporter